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MELVIN R. GIBSON

EDITOR

RUFUS A. LYMAN

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MELVIN R. GIBSON, EDITOR  
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# ADDRESSES

## ADDRESS OF THE PRESIDENT

LINWOOD F. TICE

One of the duties of the President of this Association is to present an address. The "Officers' Manual" gives some guidance and direction to the President for the purpose of helping him with this assignment. It is suggested that the President's Address may be either a report of the accomplishments of the past year with comments on the work of the several committees or "a general overview of the educational scene or of this in relationship to pharmaceutical education." The "Officers' Manual" goes further and intimates that it should be "scholarly and constructive." In this latter stipulation, the committee responsible for the Manual did not reckon with the present incumbent!

Two years ago, when I received the high honor of being chosen as your President-Elect, I had no appreciation of the difficult task which lay ahead of me. At that moment, it was quite natural for me to be highly gratified for the confidence which the members had in my capabilities and to hope that I would be able to live up to their expectations. As I served my apprenticeship under President Burt, I began to appreciate more fully the difficulties and hard work attached to the office, and I must confess that I was not nearly so confident in my ability to serve when the time finally came for me to succeed one whose efficiency and good judgment is known to us all.

It is not my wish to discuss the activities of our several committees over the past year, for this is done by the chairman of each committee in making his report. On the other hand, I find it impossible to discuss a number of important aspects of pharmaceutical education without, at times, getting into the domain of certain of these committees. It is gratifying to know that attention is being given by some appropriate committee to almost every problem I wish to discuss. For this, we should be highly encouraged since it shows that our Association as a whole is actively engaged in advancing pharmaceutical education and that our activities are not just in the hands of the few who comprise our officers.

## THE RECRUITMENT OF STUDENTS

There are some in the ranks of pharmacy who ask why our colleges are so concerned with the recruitment of students when it appears that in coming years we shall be flooded with applicants far in excess of our capacity to accept and train them. There seems to be little doubt that, before long, we shall have all of the applicants for the study of pharmacy we can accommodate. The question is, "What kind of applicants will they be and what kind of pharmacists can we hope to make of them?" At the moment, the question of quality of applicants is somewhat academic since the ratio of applicants to those accepted, the country over, is not very large and is, indeed, far below that in other health professions. In time, however, and in the not-too-distant future, this ratio is certain to increase. Even so, will we get those young men and young women who should enter our colleges of pharmacy if the future well-being of our profession is used as the criterion?

It is my belief that some of the present weaknesses of pharmacy professionally can be laid directly at the doorstep of some of our member colleges, since all of those practitioners, whose lack of professionalism we now deplore, at one time were enrolled as students in some college of pharmacy. If, in their selection, their qualifications were such that they could not be indoctrinated with the meaning of professionalism and be expected to adhere to it, is it they then who really are to be blamed or is it those of us who chose poor raw material and then turned out an educational product which we knew was defective? It is next to impossible to take a young person who is poorly motivated, has little or no concern for his fellow man, and almost no ethical standards and in four or even six years change him into the type of professional person which we all insist the pharmacist should be. If, as educators, we really believe that our graduates in pharmacy should have certain qualifications, then we must take steps to see that we get not just students but the right kind of students.

The Committee on Recruitment Aids, under the able chairmanship of Dr. Richard A. Deno, has been engaged in a far-reaching program to help us get the quality of students which we need. I shall not describe all of the projects which this Committee has completed and has on its agenda, but I do wish at this moment to urge all of you to see the two films, *Design for Life* and *Time for Tomorrow*, which will be shown to our group for the first time on Monday evening following the banquet. I particularly wish to impress upon you that these films were not made for the purpose of encouraging deans and professors to enroll in a college of pharmacy! They were prepared with the guidance of experts for the



purpose of motivating the finest type of young people of high school age to give serious consideration to pharmacy as a career. In doing this, we have not attempted to present pharmacy as a quick and easy pathway to financial success, for it has been shown that, even in the "dollar-conscious" United States, there are other considerations of greater significance to young people who are choosing a career. It is our fervent hope that these films will bring to pharmacy an even higher type of student than we have had in the past—not just those who will be more capable in their studies but young people with a sense of dedication to human welfare and who have a desire to serve their sick and suffering fellow man.

There is nothing basically wrong with the wish for financial success, but it is practically impossible to turn out the kind of pharmacist our profession needs if this is the only reason the student enters the field.

I wish to urge each and every educator here to give his support to this long-range recruitment program for, without such support, all of the efforts of our Committee will be to no avail. We must remember that, at present and, even more so, in the years to come, we shall be competing with other fields which, like ourselves, are avidly seeking the "cream of the crop." Were it not for our ambitious and energetic program of recruitment, we might well find ourselves in the situation where, as time went on, the quality of our raw material became worse and worse. It is for this reason that the Committee on Recruitment Aids of our Association is of such outstanding importance and that it has received the generous support of the American Foundation for Pharmaceutical Education.

#### SCREENING OF APPLICANTS

With the steep rise in the number of applicants for the study of pharmacy which is anticipated, and with the assumption that only part of these will be the type of students which we should accept in a college of pharmacy, what is the best method for screening these many applicants to make sure that we get the best from among them? Almost every dean feels that he has a system which works quite well, but I doubt very much whether most of these favorite systems would prove to be entirely valid if they were subjected to a careful evaluation of the results achieved. It is a very difficult thing to measure with accuracy the aptitude, motivation, ethical and moral standards, and the many other things which are involved in predicting with a fair certainty an applicant's likelihood of success, both as a student and as a practitioner of a health profession. Our medical and dental colleagues long ago decided that the methods used by individual colleges were quite fallible. As a

consequence, they engaged the services of experts to devise a national examination to be given applicants seeking to enter these fields. The scores made in the Medical College Admission Test and the Dental Aptitude Test are given great weight in the personal evaluation given each candidate for admission to these fields.

This past year, the Committee on Predictive and Achievement Tests was asked to take as its major project a study of the desirability and practicability of such a national test. Dean Joseph B. Sprowls and his committee have done this, and I am sure their report will be of considerable interest to our members. As your President, I urge you to consider the great importance of the very best screening method which can be developed and, furthermore, not to make the mistake of thinking that systems currently in use in our colleges cannot be improved upon. With all respect to those who have worked on this problem for many years, this is an area of specialization, and we would be well advised to solicit the guidance and help of experts rather than be complacent and ignore our own inefficiency. Again, may I stress the point that if we fail to find those nuggets hidden among the common stones we are missing one of our greatest opportunities to elevate the profession in future years. We alone are entrusted with the selection and training of those who will someday control the destiny of pharmacy. It is a responsibility that must not be taken lightly.

I recommend that this Association endorse in principle a National Pharmacy Admission Test developed by experts in such testing procedures, and that the Executive Committee seek the means of underwriting its cost.

#### CURRICULUM

Our colleges of pharmacy are presently in a transition period and will continue to be until the five year program is fully implemented in all member colleges. Each year, more colleges report either the adoption of a five year program or its scheduled adoption in the very near future. The Curriculum Committee has been alert to the necessity of giving all possible guidance to member colleges in planning and developing their new curriculum. The Committee has had its work made much less difficult by the thorough study so excellently reported and described in *The Pharmaceutical Curriculum* by Blauch and Webster. Last year, the Curriculum Committee reported on what it considers to be the educational goal which should be accomplished in the first two years of the five year program and, this year, it has given its attention to the professional years and the essential courses which these years should embrace. I wish to commend Dr. Lloyd M. Parks for

the excellent manner in which he has carried out his assignment as chairman of this Committee. The report which he will give merits your very close attention. I say this because there are pitfalls which are almost certain to trap the unsuspecting pharmaceutical educator who proceeds to develop what he believes is the ideal curriculum. With all apologies to Dr. Parks for anticipating some of his report, I wish to dwell briefly on one very important aspect of the new curriculum. I do this not because the report itself fails to do so adequately but because there is a hazard which cannot be stressed too much or too often.

During those difficult days when, as educators, many of us were soliciting the support of others for the five year program, we stated some of its objectives and, indeed, its most fundamental objective clearly and emphatically. In so doing, we gained the support of many who might otherwise have been against the plan. Now that the five year program has been approved and is to become a reality, we must not forget the promises and pledges made in gaining for ourselves the support which we needed. The most telling argument used in support of the five year program was the need for more general education. It was our plea that we desired above all else to turn out young men and young women educated in the broadest sense of the word and not simply scientists and technicians.

The vast majority of our pharmaceutical educators—at least those who control the field—are men and women who have specialized in some branch of pharmaceutical science and whose undergraduate education was itself almost devoid of general education. If we are not extremely careful, we shall take the opportunity offered by some additional credit hours to expand those technical and scientific courses in which we are specialists rather than make them available to others whose fields of specialization we ourselves do not fully appreciate. Already, there are reports of member colleges who plan to use the extra time for a standard course in calculus and physical chemistry.

While the Curriculum Committee and this Association cannot dictate the curriculum to any member college, it is our solemn obligation not to forget what it is that we have pledged ourselves to accomplish. You may be sure that our performance will be watched by many to see if indeed we will carry out our promises and broaden the education of the pharmacist. Our integrity as educators makes it imperative that we do not lose sight of this educational objective.

In planning the curriculum there are, of course, other considerations of importance which have not gone unnoticed by the Cur-

riculum Committee, and I commend its report as one worth careful reading by every faculty member in each of our colleges.

Pharmaceutical educators must continue in their efforts to explain to the rank and file of pharmacy the need for the five year program and what is is we hope to accomplish by it. The mere fact that we have managed to revise our Bylaws making the five year course mandatory is not enough. The long debate which preceded this action created considerable ill will which is not in the best interests of either our colleges or the practitioners of pharmacy. We must make every effort to win the support of pharmacists by having them understand better both our plans and our program as it develops.

In this connection, I should like to recommend that this Association send an official delegate—if possible and, if not, an unofficial one—to represent us at the Annual Convention of the National Association of Retail Druggists. This delegate should be someone carefully chosen by the Association and one who can bring to this group a clear understanding of our program as well as bring back to us criticisms and comments concerning ourselves. Such a delegate, if he is effective, could do much in improving our relations with retail pharmacists, the vast majority of whom look to the NARD for guidance and give it their support.

#### TRANSFER CREDIT

The number of students entering pharmacy with previous training in a college of liberal arts and sciences increases each year. Such students may become one of our major sources of supply as more and more colleges adopt the five year program. While such students often are among our best, some few problems are known to arise when they transfer. The most critical problem is the evaluation of certain basic science courses already taken; this is most acute in the case of organic chemistry. The Committee on Educational and Membership Standards, under the chairmanship of Dean Chauncey I. Cooper, was asked to give this matter its attention, and it seems likely that this Committee will have many other problems requiring study in coming years. While it is true that transfer credit poses a problem, we must not make the mistake of either ignoring the difficulties which arise or condemning the five year program because it involves certain transitional problems. There has never been, and probably never will be, an advance made in education or in other human affairs which was not accompanied by a few difficulties and liabilities. These complications are to be expected. They must be met and solved, and I have no doubt that our Committee will succeed in finding the solution for us.

**LONG-RANGE NEEDS**

Even before I became your President, I had long been concerned with one of the most perplexing problems which has confronted pharmaceutical education since its inception. In simple terms, it is, "How many students should be trained for our profession, and is it possible to determine the ideal number?"

In the past, we have operated largely on the basis of supply and demand. There are, today, those educators who feel that this is the proper procedure. Others feel that a more limited number is better for both the profession as well as the public. It matters not the least to which school of thought one subscribes, all of us must admit that great damage has been done the profession at various times in the past when we permitted the law of supply and demand to operate without restraint. In the early 1920's, some of our colleges enrolled vast numbers of students, far in excess of the capacity of the field to absorb them properly on graduation. The outcome was that, upon graduation, they were hard pressed to find suitable employment. They were forced to bid against each other for the few available positions. The result was that their economic situation became deplorable. The impact of this educational policy is still felt in some of our metropolitan areas where there are far too many drugstores. Here, the professional and economic level of the pharmacist suffers as a consequence. In one city—the name of which I shall not mention—the average annual gross sales of drugstores are alleged to be \$30,000 a year below the national average, while the per capita income of its citizens is above the national average. A survey of drugstores in this city would reveal their professional level also suffers by comparison. It is an easy matter to blame these pharmacists for their dereliction, but had the colleges in their area been more conservative and accepted only a fraction of the vast numbers applying for admission some years back, this would not have happened.

Some will say that there is no such thing as educating too many people. To this, we can agree, but, when faced with such large numbers, the proper solution is to raise the standards for admission and/or the achievement required of the student. Had these thousands of students in the twenties been given an education instead of the training of a technician, things would not have developed as they did. As it was, these unfortunate persons who were trained only as technicians were totally unprepared to follow any other vocation except pharmacy and, here they remained.

Today, we are pressured on every side to increase the number of our graduates, and it may well be that there is presently a shortage of pharmacists. Just how acute this is and whether we should

turn out many more graduates is a matter of conjecture. We can be quite certain that some of those who cry for more pharmacists will not be satisfied until pharmacists can be employed quickly and cheaply. I say, "cheaply," because, even now in many areas where the reputed shortage exists, employee-pharmacists are paid less than non-professional help in the same commercial establishment. Needless to say, it is such inequity in salary which is making it possible for unions to make inroads in our profession.

If there is a large increase in applicants to study pharmacy—and this is likely to happen—how many pharmacists should be trained? Are our present colleges prepared to take care of this number of students? Should the organization of new colleges of pharmacy be encouraged and in what geographical areas are they most likely to be needed? These are very difficult questions to answer for no one really knows now how many pharmacists are needed each year taking into consideration that which is ideal for both the public and the profession. To answer these questions involves some clairvoyance, for one must assess the future birth rate, the state of our economy during the coming decades, pharmacy's place in the scheme of things, and many other intangibles. Since no one else in the field of pharmacy seems to be giving this matter thought, our Association cannot avoid it.

This year, a Committee on Future Enrollment Problems, with Dr. George L. Webster as Chairman, was asked to make a start in studying this very complex problem with the hope that, eventually, some guidance could be given member colleges. It is your President's firm conviction that every effort should be made to discourage the formation of new colleges of pharmacy unless a definite need can be shown for such colleges and they are well-financed. Weak, poorly conceived institutions invariably become a problem for this Association, as well as for the American Council on Pharmaceutical Education. It is far better to have valid data which can be used to abort an ill-conceived and unsound attempt to start a new college of pharmacy than it is to do nothing about it and then be faced with the necessity of watching it in its slow, agonizing struggle or its lingering death. We can be sure that, as favored sons of alumni and those with political influence are denied admission or fail, there will be attempts to start new colleges of pharmacy. It is only with sound facts and figures that this can be discouraged. On the other hand, if an established and well-financed institution wishes to organize a college of pharmacy on its campus based on a real need in the area, we should welcome such an addition to our ranks.

It is only with sound information, including manpower require-



ments, that this Association, or the Council for that matter, can give advice and guidance when it is needed. We must, at all costs, avoid the mistakes of the past, and, here, it will take not only the data we seek but the determination to resist external pressure.

I wish to recommend that the Special Committee on Future Enrollment Problems be continued as a continuing or standing committee of this Association.

#### OTHER COMMITTEES

It is obviously impossible to comment on the work of every committee delegated responsibilities by this Association, and it must not be presumed that failure to discuss any committee's work means that it is unimportant. This Association has many important committees, and it has ever been true that they have taken their assignments quite seriously and worked diligently to solve the problems given them. This year's committees have been no exception, and, in reality, it is they who direct the future of pharmaceutical education, not your officers. Many long hours are spent by the dedicated individuals who work on the numerous Association projects, and our sincere appreciation, and that of all pharmacy, is due each and every one of them.

#### CHANGES IN THE PRACTICE OF PHARMACY

If one surveys the changing pattern in the practice of pharmacy, it is possible either to be highly optimistic or deeply pessimistic over the future of our profession. Which of these attitudes is the proper one cannot be stated for a certainty, for there are many confusing and perplexing developments taking place rapidly today, such as the change in the retail pattern of drug distribution. Some of these changes all pharmaceutical educators must oppose as a matter of principle, but whether the tide can be turned is quite uncertain. It is also not clear what path we should follow legislatively or otherwise in attempts to reverse what many of us feel is contrary to the best interests of both pharmacy and public health. Whether it is proper for this Association to take an active part in the current efforts being made by other pharmaceutical organizations to defend that which is pharmacy's proper province is open to question, but all of us can agree that the pharmacy of a few decades hence will be quite a different thing from that which we know today.

If, as educators, we are alert to our responsibilities, we must be giving thought to what the likely complexion of pharmacy will be twenty or thirty years from now. Is it possible by studying trends and carefully evaluating the opinions of experts for us to

envision the pharmacy of tomorrow? If it is, would it not be wise for us to begin planning for that time and even modifying our curriculum accordingly? In the past we have always lagged somewhat behind changes in the profession in so far as our course syllabi were concerned. It is a standing joke on many a college campus—to use the language of the student—that the professor “doesn’t know what the score is”! Would it not be wise for us, even though we may be groping in a vast unknown, to try to piece together what we can expect of tomorrow?

As your President, I wish to recommend that some Committee of this Association or some special committee be assigned the problem of studying what are the likely changes which will take place in the practice of pharmacy within the next one or two decades. This will be a difficult assignment, and the Committee may not be able to find even a partial answer, but the attempt should be made.

#### PHARMACY'S PUBLIC RELATIONS

For many years we have heard of the need of a well-organized and integrated public relations program for pharmacy. It now appears that a national committee is being formed to put into effect an extensive program along these lines. While the work of this committee will be financed very largely by the drug industry, we as pharmaceutical educators have a proper and legitimate interest in the nature of the program which is undertaken, and we cannot afford to be aloof to it.

I wish to recommend that this Association endorse the principle of a public relations program as it is presently being formulated and, through its officers, ask that we be given official representation on the committee. To your President, this would seem a perfectly valid request, and there is no reason to believe that it will not be favorably received. We, as educators, can make constructive suggestions as the program in detail is developed.

#### THE PAN-AMERICAN CONGRESS OF PHARMACY AND BIOCHEMISTRY

The Fourth Pan-American Congress of Pharmacy and Biochemistry will be held in Washington, D.C., in the fall of 1957. A preliminary meeting of representatives of all the national organizations of pharmacy was held in New York on December 13, 1955. Mr. Robert A. Hardt was chosen to serve as the general chairman of the committee which will have the responsibility of planning for this event. This is the first international congress of pharmacy held in the United States since 1893, and it is an opportunity for us to do much to improve the relations between ourselves and our



neighbors, as well as raise the prestige of American pharmacy. In the past, we have not always performed in a way which has made our neighbors to the south feel very friendly toward us, and we have been guilty of an aloofness which has not been to our credit.

Among those who will visit the United States will be many representatives of pharmaceutical education from other countries. It would appear that our Association should play a very active part in arranging a program which will be of interest to them.

As your President, I wish to recommend that this Association participate fully with the other national organizations in making plans for this Fourth Pan-American Congress. I further recommend that the incoming President, or the Executive Committee, appoint a special committee whose responsibility it shall be to represent the Association during the planning stage for this meeting.

#### THE LILLY INDUSTRIAL SEMINAR

Last summer, a seminar unique in the annals of pharmaceutical education was held in Indianapolis under the auspices of Eli Lilly and Company. This week-long industrial seminar was attended by at least one representative from every college of pharmacy in the United States and Canada. It is not my intention to discuss the details of this seminar, but I do wish to commend the company sponsoring it. I am sure that each representative there went back to his institution with a much better comprehension of modern pharmaceutical industry. While such a seminar undoubtedly was of value to the company sponsoring it, it also had great value to pharmaceutical education. One of the continuing hazards which we as educators face is that, living in our cloistered halls, we may get out of touch with reality. When this happens, we are likely to be teaching in a way which was quite adequate in a bygone era but not in keeping with the present, and surely not with a vision of the future. As educators, we must understand and appreciate the direction which pharmacy is taking.

As one who attended the seminar, I think I can speak for all of my colleagues who were there. It was an extremely valuable week, just as it was a pleasant and comfortable one. For all this, we have, of course, the officers of Eli Lilly and Company to thank and also one of our own colleagues, Dr. Bert R. Mull. This was Dr. Mull's last official function with his company, but we had little realization then that it would be the last time that most of us would see him. Bert Mull was the kind of man who vitalizes and enriches any field of human endeavor. We in pharmacy will miss him, as will the company and university where he rendered such outstanding service.

AMERICAN FOUNDATION FOR PHARMACEUTICAL  
EDUCATION

While it is customary for the Chairman of the Executive Committee to call specific attention to the many Association activities which are underwritten financially by the Foundation, as your President, I cannot let this opportunity pass without some mention being made of this force which has infused life and strength, not only in our Association but in the entire field of pharmaceutical education. Each year, our members hear some expression of appreciation given the Foundation, but it is only those of us who are intimately connected with Association affairs, as well as the business of the foundation itself, who can appreciate fully all that is done. It would be a very enlightening experience for everyone here to attend meetings of the Board of Directors of the Foundation and see the time and attention given by many of our industrial leaders in making the Foundation an ever-growing source of support. This they do with only one objective in mind: namely, to improve and strengthen pharmaceutical education. It would also be enlightening if each of you could see the budget of our Association in all of its details, as well as that of the American Council on Pharmaceutical Education. I can tell you quite frankly that the essential functions of both organizations would grind to a halt if they did not have the Foundation's financial support. So accustomed have we become to the broad and ambitious program now possible in the Association that we are likely to forget those lean years when we were forced to subsist on almost no income except that derived from membership dues. It is, of course, true that the Foundation was organized for this precise purpose, but it is a tribute to its members and its officers that it is serving this function so well.

Special recognition is due its Secretary and Executive Director, Dr. W. Paul Briggs. Dr. Briggs' enthusiasm and energy in behalf of pharmaceutical education were known to us even before he became associated with the Foundation. In his present capacity, he has proven himself to be ideally suited for his position, for he has succeeded in translating our needs to the Foundation just as effectively as he has succeeded in keeping us from assuming that the financial assets of the Foundation are inexhaustible. To Dr. Briggs goes much of the credit for the splendid and cordial relations which this Association and our member colleges enjoy with the members, officers, and directors of the Foundation. This cordiality and co-operation, together with the many constructive programs which the Foundation makes possible, promises to bring about a great improvement in our profession.

THE EXECUTIVE COMMITTEE AND OFFICERS OF  
THE ASSOCIATION

Before closing this address, I wish to pay public tribute to the excellent support I have received from President-Elect Hewitt; the Chairman of the Executive Committee, Dean Zopf; Secretary-Treasurer Deno; and the other members of the Executive Committee. I particularly wish to commend the outstanding work done in behalf of this Association over the past several years by Dr. Richard A. Deno. The thoroughness and efficiency with which he has carried out his assignment has set a standard which will make it most difficult for his successor. As the President of any organization knows, an alert and efficient secretary is half the battle. During my tenure of office, I have been singularly blessed by having a man of Dr. Deno's caliber so closely associated with me.

## CONCLUSION

In this address, I have avoided all reference to the efforts which I, personally, have made during the year to serve this Association. I have tried to do those things which were the responsibilities of the office and, on a few occasions, fulfill some small assignment which seemed to be of possible value in furthering our program. It has been a year of hard work, as only those of you who are Past-Presidents can appreciate, but I have enjoyed every moment of it and I hope I have been of some small service.

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*The job of making pharmacists of character, of making our future pharmacists men of rugged individualism is a task requiring the utmost in cooperation on the part of all the institutions with which the students come in contact during their formative years. Employers, faculty, and students, we are all striving to attain the same end, a better profession, so why should not we study our problems together in order that we may enjoy more fully the result of our labors.*

L. David Hiner, Am. J. Pharm. Ed., 5, 217 (1941)

## ADDRESS OF THE PRESIDENT-ELECT

H. G. HEWITT

This is the third time the American Association of Colleges of Pharmacy has met in Detroit. I was not at the first meeting here in 1914, but I well remember the fine hospitality displayed toward us in 1941 and which has been repeated this year.

Since 1900, when our organization was founded as the American Conference of Pharmaceutical Faculties and Dean Albert A. Prescott of the University of Michigan was our first President, to the present time, 55 men have served us well as presidents. No one could stand before you as I do, honored as the 56th President, and not feel humble and somewhat frightened at the responsibilities that go with this office.

As great as were my predecessors, I am certain they would not have had successful terms without active support of the other officers, committeemen, and the membership at large. It is my hope that the same support will be given me in the year ahead. Following such an able leader as Dean Linwood Tice, and in the presence of a dozen or more former presidents, I solemnly promise to give my very best to the Association during 1956-1957.

There are many important problems facing us in the years ahead. I should like briefly to discuss four of these today. One is the problem of our rapidly increasing population as it affects pharmacy. A second is that of our responsibility to attract superior students to the study of pharmacy. Another troublesome problem involves instructional programs in secondary schools, feeder colleges and our own professional colleges. And finally we have that of the teacher in pharmacy, for providing adequate teaching personnel is a very real problem.

### POPULATION PROBLEMS

In the past, population problems have been left largely to demographers. Now we must face this problem of increases in the next decade or so.

Never has interest in education been so widespread and so intense. The ever-climbing birthrate, the increasing percentage of youth of college age who wish to attend college, "degree consciousness" which has been increased by World War II and the Korean War, and the premium placed upon such education by employers, all have brought about increased enrollments at the present time. And this is only the beginning.

We are told that the increases in numbers of youth of college

age will be 16% by 1960, 46% by 1965, and 70% by 1970. These boys and girls are already born; we can count them now.

While but 4% of college-age youth attended college in 1900, this figure has increased to more than 25% today. Assuming that we will continue in the tradition of providing educational opportunities for American youth, we will have at least twice as many students by 1970 as are now enrolled in our universities and colleges.

We have about 17,500 students in pharmacy today. This means that *one* out of every 170 college students is enrolled in a school or college of pharmacy. If the current ratio of 1 to 170 applies in 1970, we will have around 35,000 students in our professional group.

This number is frightening! It poses many problems not only for teaching personnel, but it poses problems of plant and of the ability of existing institutions to absorb this group. We cannot sit idly by and expect some miracle to take place to solve problems presented by these numbers. The time to act is now, and I am looking forward with deepest interest to the report of the Committee on Future Enrollment Problems. A truer picture will be revealed when this report is completed and we have more than mere guesses and probabilities to work with. It is my recommendation that this special committee be continued as long as may be necessary to complete its work.

The population problem is not one of numbers alone, difficult as this may be. Present facilities may be expanded and perhaps some new ones developed, but the basic questions are still with us. Should we limit enrollments through the development of a better testing program? I believe so. I am not advocating an intellectual hierarchy, but I feel that in the public health fields we cannot let the slow student set the pace for our teaching.

A college education is an invaluable experience for many people, but it is a mistake to assume that all can profit from it.

It is my hope that the program recommended by the Committee on Predictive and Achievement Tests can be inaugurated, and that their recommendation that it be renamed the Committee on Predictive Tests will be approved by the Association.

It is economically unsound to admit all who choose to enter college, merely to apply the axe heavily at the end of their first year. Not only is this wasteful of manpower, but it may cause scars which may be carried for many years.

I am not recommending limitation of numbers merely as a convenience for fitting into the available physical structures, but rather I am arguing for enrollments limited to those who are mentally well qualified for pharmacy. Certainly no one truly interested in pharmacy wants to see an overproduction of poorly educated phar-

macists. We should be concerned with multiplying excellence rather than with compounding mediocrity.

With the advent of the five year program, not later than 1960, we are presented with increased opportunity to educate for professional responsibilities. I foresee also in the extended program a further opportunity to attract the best abilities to our profession. In a 2-3 program or even a 1-4 type, we can exert greater care in the selection of students for study of the professional subjects.

Our professional courses will benefit greatly by having the basic sciences taught in the preprofessional period. The usual college adjustments will have been made, they will have had a chance to prove their abilities to handle course work, they will be more mature and certainly should have the motivation necessary to meet the rigorous demands of modern professional training.

Certainly with these advantages we will be able to raise the level of our instruction to a point where we can expect a better understanding of professional course work. Opportunity is afforded us to better integrate the basic sciences with the applied work. We will also gain some benefit in a better sequential organization of course work.

#### GUIDANCE PROBLEMS

In the statements of principle in the Code of Ethics of the American Pharmaceutical Association, I find "The pharmacist seeks to attract to the profession youth of good character and intellectual capacity and aids in their instruction." Every staff member should also share the responsibility of interesting well-qualified youth in our profession. This is not just another duty for deans.

We should be more active in working with vocational guidance and science teachers. All avenues must be explored to attract creative and imaginative minds into all fields of science, for our purpose particularly into the many professional outlets in pharmacy. Recent studies show that about 50% of the top-ranking quarter of high school graduates possess ability to succeed in college. About one half of these talented youngsters wished to attend college but were unable to do so because of financial need.

It is paradoxical that we are concerned over increased numbers on the one hand, yet must concern ourselves with ways and means to attract more students from this desirable group. We are concerned about the anticipated flood, but more than with quantity we should be concerned with quality.

Certainly we should seek additional ways and means to make it possible for more of these students to enter pharmacy. We cannot pass this subject of financial aid without paying our respects to



the American Foundation for Pharmaceutical Education for the fine job it has done with scholarship and fellowship aid. We hope that it will continue the undergraduate scholarships in accredited institutions, and hope also for additional scholarships not limited specifically to junior and senior class members, but available to able entering students. These should be augmented by further grants from higher educational institutions themselves, plus help from state and federal funds. Some further study is needed by our Association to seek out these and other sources, so that gifted youngsters will have an opportunity to develop their talents both at the graduate and undergraduate levels.

As important as is the economic barrier to college education there is also a lack of motivation toward higher education in the sciences and pharmacy. In our contacts with high school administrators and teachers, we should better educate them to the opportunities offered by the pharmacy program. Great credit goes to the Committee on Recruitment Aids for their fine work in producing the career booklet, "Shall I Study Pharmacy?" and to their responsibilities associated with the production of the two films which were shown last night following the joint dinner. The films and additional materials to come on graduate education were made possible by the substantial special grant of the Foundation.

I recommend that this committee study ways and means of furthering guidance programs in high schools through direct association with teachers and guidance counselors.

Let us not forget the valuable publicity given pharmacy by the full-page spread on "Should Your Child Be A Pharmacist?" sponsored by the New York Life Insurance Company, or that provided by the drug industry in bringing some 1,000 selected high school and junior college teachers to the 5th Annual Industrial Council program at Rensselaer Polytechnic Institute. We are indebted to Robert Hardt for his vision and to Pierre A. de Tarnowsky, Theodore G. Klumpp, John A. McCartney, Raymond Rice and Ernest H. Volwiler, for the excellence of their papers in this well-integrated program. If you have not read them by now, I recommend them to your attention.

Another segment of industry has realized the value of the improvement of science teaching in high schools, and 54 companies and technical societies invested over forty-six thousand dollars in 1955 in the Future Scientists of America Foundation set up by the National Science Teachers Foundation. The Foundation underwrites the expenses of career-guidance materials and services and in many cases helps the teachers themselves to renew their training and get up to date on subject matter. The pamphlet "Shall I

Study Pharmacy?" will be included in this fall's packet of guidance material mailed by this Foundation.

All of these projects and further efforts should constitute an extended well-planned program of recruitment of the best minds we can possibly attract to our educational program.

#### INSTRUCTIONAL PROGRAMS

You may share my alarm over the distaste shown by many of today's high school students for science and mathematics. Recent studies by Homer and Norton Dodge reveal these startling facts: 1) one half of the U.S. high schools now offer no chemistry or physics courses; 2) there are but 24% of high school students studying algebra, 11% studying chemistry, and but 4.3% studying physics today, as compared with 56%, 27%, and 19%, respectively, in 1900.

It is also true that high school science teaching is weakened by scarcity of laboratory courses. Without this laboratory experience, the heart of the course, the chief inspiration in science study has been lost. It is no longer popular to gain the thrill of solving mathematical problems, or to follow the more rigid discipline required in courses with substance. It seems that "problem solving involving life situations" is the more important thing. It is becoming increasingly difficult to build college courses upon the inadequate high school science and mathematics foundation.

For the sake of further discussion, let us assume that our physical plants will be reasonably adequate for the increased enrollments, that our efforts in vocational guidance and in recruitment will be productive, and that we all recognize the needs for professional and scholarly training in our new five year program. Even with such a utopian dream, we still could not succeed without a most important part of this team—the teacher.

#### THE TEACHER

It is my belief that the most critical need of our profession today and in the foreseeable future is for teaching personnel. Not only recruitment of good students is necessary, but vitally important is the recruitment and training of capable teachers.

As our good friend Dr. Lloyd E. Blauch says so well in his book, *Teaching in Colleges and Universities*, "The character and progress of a profession depends largely upon its teachers. There is no such thing as a great profession without the creative work of great teachers. Through the teacher the future practitioners have their intimate and extensive contact with the profession. The teachers determine what these young men and women will learn, what pro-



fessional attitudes they will develop and what ideals they will espouse."

We have long been at a disadvantage in attracting enough of the best graduates to our schools as teachers or holding them after they have launched on this important career, because of the constant inroads by industry. It is necessary that we make it far more rewarding financially than it is at present to attract additional qualified people into teaching and to keep them in it. Unfortunately good teachers rise to fame rather slowly. One of the most potent ways to encourage good teaching is to reward it with promotion in rank and with salary increases. Administrative officers must be alerted to market values of teachers in pharmacy as they have been in engineering, medicine, and business.

It is encouraging certainly to note here and there signs of a realization that without good teachers, supplying the needs of industry with good trainees is most difficult. We must find graduate fellowships and postdoctoral awards for developing skills in teaching as well as in the subject matter of pharmacy. This training of pharmacy teachers should be a part of our graduate patterns of training for those who desire teaching as a career. We should offer them every opportunity to get such valuable experience. Unfortunately, I fear that all too often we figuratively pass out a "Do It Yourself Kit" and expect it to be sufficient in developing instructors who can inspire as well as teach. There is an old German saying which when very freely translated states that when one's heart is full one's mouth overflows. The mere moving of one's mouth does not necessarily mean inspired teaching.

All too often we have seen the problem of teaching undergraduates turned over to graduate assistants with little if any guidance or supervision by experienced teachers. And all too often teaching is considered by some of the assistants as a necessary evil in helping finance their graduate studies. This matter of delegating such vital work to inexperienced assistants comes as close to academic automation as can be realized. I am just as interested as anyone in this room in scholarly productivity, but not at the expense of freshmen and sophomores. It is at this level that we should concentrate our best teachers to develop the interest in and the love for things pharmaceutical. It is here that guidance should be given the assistant and the experience of the best teachers shared with the neophyte. Failures here have caused many would-be pharmacists to change to other areas, areas with more inspiring leadership.

Ideas which we no doubt all hold are so well expressed in the following statement that I quote directly from "An Open Letter to College Teachers" by F. Payne and E. Spieth: "If we were se-

lecting a teacher we should look for a person of broad scholarly training, interest and culture; one who is interested in teaching and one who can look upon the problems of students with sympathy and understanding. We should want him to have character and personality, but not merely the personal appearance variety. He should have the energy and the enthusiasm which accompany an inspiring and stimulating personality, and he should be logical in thought, thorough in preparation and willing to work at the job. We should expect him to have initiative, originality, adaptability, aggressiveness and perhaps it might not be too much to expect a certain degree of refinement. Inquisitiveness should not be forgotten, for we should want our teacher to be a discoverer, a researcher, although we should not want this interest to drive out all others. If you will give us a person with these qualities, you may omit many minor ones, and we shall gamble on his success." Such teachers are needed in large numbers to overcome our shortages particularly in the divisions of pharmacy and pharmacy administration.

The teachers' seminars are designed to aid in developing better teaching in our schools of pharmacy. The success which has been associated with these programs is most encouraging. To me one of the most significant facts is that there is a sincere willingness to make the sacrifices necessary to become better teachers. This was clearly evident at the Annual Teachers' Seminar on Pharmaceutical Education held at Storrs in 1954. I believe this type of program should be repeated more often than every sixth year. Further, a major part of the specific subject in all seminars should be dedicated to "how to teach" as well as to "what to teach."

In comparing the registration lists of the first Seminar in Pharmacy at Madison and that at Butler last year, I found that 28% were at both meetings. Just as important was the fact that there were relatively more young teachers and graduate assistants attending the Butler meeting as compared with the enrollment at Wisconsin.

We should not forget to remind our scholars who wish to investigate further specific problems in the areas served by pharmacy of the Gustavus A. Pfeiffer Memorial Research Fellowships. Information on this postdoctoral aid may be had by corresponding with the office of the American Foundation for Pharmaceutical Education in Washington.

With respect to our graduate training we must be on the alert constantly to upgrade the programs so that the quality of our candidates always compares favorably with that of those trained in pure chemistry for example. In order that we may attract to our advanced program the best of our undergraduates, it seems to me

that we should start recruiting them in their junior year. It is possible to select a few of the more interested and able students to follow a program of pregraduate training. They could be excused from the usual business subjects and these credits along with those of normal electives could be turned toward advanced work in preparation for research. This gives them a chance to try their wings and to gain valuable experience in library work as well as in the elementary techniques involved in problem solving.

In this regard, it seems to me that all too often, at the expense of the student, we are prone to keep the best undergraduates "at home" in our own graduate programs. This is not in the best interest of the student for there are broadening ideas held by members of other faculties from which they can derive real benefits. There should be a greater interchange of graduate candidates between institutions to reduce the hazards that normally result from inbreeding.

I wonder in our busy programs if we have given sufficient thought to changes in the practice of pharmacy that will take place within the lifetimes of our graduates? While the art of compounding may be less called upon today, it is still just as essential to learn the skills of developing the various dosage forms as it ever was. In the past, training programs have too often stressed rote memory and proficiency as technicians. The newer role of the pharmacist will require a greater understanding of scientific facts so that our trainees may be truly scientific consultants and technical advisers to all members of the public health team.

We must prepare our pharmacy students well in the basic scientific facts to allow for their proper interpretation and the handling of medicines of the future, whether they be radioactive materials or other forms of medication yet to come. While skills may come and go, the basic principles remain to be reapplied in the newer form.

It is also essential that we give thought to the preparation of these young men and women so that they may be able to benefit by the leisure which is certain to come, even to professional people.

We must make possible the development of their abilities to assume leadership in community and civic affairs, the acquirement of a hobby which will return vast dividends in later life, and appreciation of the theater, music and other arts and the ability to read for personal pleasure. These things should constitute part of the formal as well as the extracurricular training in the days ahead. Above all we are charged with not only educating for a living but also with educating for living. Let us remember that the students

we are training today will be practicing pharmacy in the twenty-first century.

May I remind you that this is the last year for the office of President-Elect. I certainly hope that when we meet again in New York City for our 57th annual convention, I can claim more than just the honor of being the last of our Presidents-Elect. This will be possible if you will be willing to give me of your time and experience in making the work of our committees most effective. I know that you will not fail the Association.

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*The best advice I can give a teacher is to get out before your colleagues all crave your job (too much) and before they call you "the old man." Then, when you come back to visit former scenes, all the pretty girl students, all the faculty wives, and wives of others will receive you in true biblical fashion—with a kiss—and verily that is happiness and contentment.*

Edward Spease, *Am. J. Pharm. Ed.*, 9, 142 (1945)

# REPORTS

## INDIVIDUAL REPORTS

### REPORT OF THE SECRETARY-TREASURER

1954-1955

Reference is made to the interim report of the Secretary-Treasurer for the eight months from August 1, 1954 to March 31, 1955. This interim report, presented at Miami Beach, was ordered received by the Association and was published in the Summer, 1955, issue of the *Journal*.

I have nothing of moment to add to the verbal portion of the interim report, and the completed financial statement was published in the Fall, 1955, issue of the *Journal* as Report of Commercial Auditors, 1954-1955. It had previously been ordered received by the Executive Committee at their November, 1955, interim meeting and has subsequently been submitted to the Auditing Committee for report at this meeting.

(Interim Report, Seven Months,  
from August 1, 1955 to February 29, 1956)

This interim report covers the seven months from August 1, 1955, to February 29, 1956, including the financial statement for this period. The financial statement has not been checked by the commercial auditors; their audit will be made following the close of the current fiscal year. The interim financial statement, however, has been checked against original records by the Auditing Committee, whose report will be presented at this meeting.

Minutes of the interim meeting of the Executive Committee were mailed to deans of member colleges early in December and published in the Winter, 1956, issue of the *Journal*.

The deans also received from the office of the Secretary a copy of the "Officers' Manual" and two reprints of the 20-page report of the Medical Library Association Committee on Standards and Criteria for Pharmacy School Libraries entitled, "Books, Reference Works and Periodical Literature Recommended for College of Pharmacy Libraries."

Also mailed were 10 reprints of the nine-page contribution from the Committee on Recruitment Aids entitled, "Graduate Study in Member Colleges for 1956-1957." Three mailings of PRxchange were made by the Secretary. Five copies were sent to each member college and one copy to 90 individuals on the supplementary mailing list.

Pursuant to instructions from the Executive Committee, early last fall the Secretary undertook preparation of a "Roster of Teaching Personnel in Member Colleges for 1955-1956." Data on personnel in member colleges from catalogues and other records in the office of the Secretary were first tabulated. These data were sent to the office of the Secretary of the ACPE for revision. The revised data were then submitted to the respective deans for final check. The Roster was published in November and two copies sent to the dean of each member college. The Executive Committee has adopted a policy of biennial revision, so the next edition of the Roster will be for 1957-1958. The Secretary apologizes for a number of errors in the Roster, and earnestly solicits careful editorial scrutiny on the part of the dean of each member college at the time of the next revision of the Roster.

By January 1, when Dr. Gibson assumed the duties of Editor and the college press of the State College of Washington became printer of the *Journal*, the radical revision of the distribution list had been completed. On February 15, the distribution list included entries for 1500 copies of the

*Journal*. Only two copies of the list are maintained, one in the office of the Secretary, the other in the Editor's office. Revision of the list is continuous, with rather rigid procedure followed in order to insure authenticity for both copies.

At the interim meeting of the Executive Committee last November, the Secretary was instructed to write each dean, teacher, pharmacy college librarian, state association secretary, and state board secretary in an attempt to increase the paid subscription list of the *Journal*. This mailing, consisting of over 1200 personalized letters and 3500 pieces, was made two weeks after the mailing of the Winter, 1956, issue of the *Journal*.

When the Winter, 1956, issue was mailed on February 15, the paid subscription list numbered 242, with 121, exactly one half of these subscriptions, personal ones of teachers in member colleges. As of April 1, the paid list numbered 326, with 191 of these personal ones of teachers. We are encouraged by the 70 new subscriptions from our colleges, and we appreciate the fine cooperation of many of the deans. We ask for additional response and continued cooperation, because 191 personal subscriptions from 993 faculty members is still far short of what we believe to be a realistic goal: personal subscription by at least one half our teachers. At the present time, in 12 of our member colleges not a single teacher or administrative officer subscribes to the *Journal*, and in an additional 14 member colleges we have one paid subscription from each. In other words, from more than one third of our member colleges we have a grand total of 14 paid subscriptions!

Also at last fall's interim meeting, the Executive Committee decided to conduct a salary survey in member colleges. A simplified questionnaire was prepared and mailed from the Secretary's office, and response was made by the deans of 74 member colleges. Immediately upon receipt of a questionnaire, the data were transferred anonymously to individual cards and the form returned to the dean who submitted it. Results of the survey were tabulated to show salary minimum, maximum, median, and mean for the respective ranks and areas of professional instruction. The individual cards were then destroyed, so no record other than the printed tabulation has been retained. One copy of the survey report was furnished the dean of each member college, each member of the Executive Committee not a dean, and the secretaries of the ACPE and the AFPE. No other copies were mailed, and none of the data has been published. The intent was to furnish reliable data for such use internally in member colleges as seemed indicated to the deans.

Finally, at the November interim meeting, the Executive Committee asked the Secretary to tabulate all policy decisions contained in resolutions, minutes of the Executive Committee, and other official documents for the guidance of officers and committee chairmen. Detailed study was made of all such sources starting with January, 1945, and policy decisions were classified and documented in a 12-page mimeographed first draft of a so-called "Policy Code." This draft was mailed to each member of the Executive Committee early in March, and was considered at the meeting of the Committee which immediately preceded this annual meeting.

During the past year the Secretary has spent much time on the films and filmstrip to be presented publicly for the first time at this meeting. He also arranged the preview of one of the films, *Design for Life*, for the Directors of the AFPE; and the press preview held in New York City on April 4.

Since September, the Secretary has represented the Association at several meetings, and this has necessitated 4 trips to New York City and trips to Storrs, Connecticut; Chicago, Illinois; Los Angeles, California; Sioux Falls, South Dakota; and Austin, Texas.

Other duties of the Secretary-Treasurer have included a large volume of routine and special correspondence; paying of bills; mailing the undergraduate brochure, *Shall I Study Pharmacy*; serving as business manager of the *Journal*; and caring for the details of this annual meeting.

The financial statement for the seven months ended February 29, 1956 is appended to this report. Additional significant expenditures to be made prior to next August 1 include expenses of this meeting; charges for two issues of the *Journal*; final payments on the films; promotional prospectus for the films; reprinting 40,000 copies of the brochure; and seminar expenses, both for 1955 and for 1956.

The interim financial statement does not, as is customary, include the financial statement of the Conference of Teachers and its Council. Report on this statement has been made to the Executive Committee by the Secretary-Treasurer of the Council on Conference of Teachers.

R. A. Deno, Secretary-Treasurer

**Summary of Funds  
Seven Months Ended February 29, 1956**

<i>General Fund</i>		
Balance, August 1, 1955		
Cash in bank	\$14,887.03	
U.S. Savings Bonds	6,000.00	\$20,887.03
		<hr/>
Receipts (Schedule attached)		29,086.85
		<hr/>
<b>Total</b>		\$49,973.88
Disbursements (Schedule attached)		18,750.83
		<hr/>
<b>Balance, February 29, 1956</b>		<b>\$31,223.05</b>
		<hr/>
<i>Fund for the Study of Pharmacy</i>		
Balance, August 1, 1955		
Cash in bank	\$ 642.64	
U.S. Savings Bonds	3,500.00	\$ 4,142.64
		<hr/>
Receipts:		
Interest on savings		6.42
		<hr/>
<b>Balance, February 29, 1956</b>		<b>\$ 4,149.06</b>
		<hr/>
<i>Recruitment Aids Program Fund</i>		
Balance, August 1, 1955		\$13,555.63
Receipt, AFPE		35,000.00
		<hr/>
<b>Total</b>		\$48,555.63
Disbursements		35,672.38
		<hr/>
<b>Balance, February 29, 1956</b>		<b>\$12,883.25</b>
		<hr/>
<b>Total, All Funds</b>		<b>\$48,255.36</b>

**Summary of Fund Balances  
February 29, 1956**

<b>General Fund:</b>		
Ann Arbor Bank, comml. acct.	\$25,223.05	
U.S. Savings Bonds	6,000.00	\$31,223.05
		<hr/>
<b>Fund for the Study of Pharmacy:</b>		
First Natl. Bank, Ia. City, sav. acct.	649.06	
U.S. Savings Bonds	3,500.00	4,149.06
		<hr/>
<b>Recruitment Aids Program Fund:</b>		
Ann Arbor Bank, comml. acct.		12,883.25
		<hr/>
<b>Total, All Funds</b>		<b>\$48,255.36</b>



**General Fund, Statement of Receipts and Disbursements**

<b>Receipts:</b>	
Dues, 73 member colleges	\$14,600.00
Journal	1,141.05
Grants, AFPE	
Seminar	7,000.00
Journal	5,000.00
Brochure, <i>Shall I Study Pharmacy</i>	1,183.60
Interest	127.20
Miscellaneous	35.00
<b>Total Receipts:</b>	<b>\$29,086.85</b>
<b>Disbursements:</b>	
Annual meeting	\$ 0.00
Interim meeting, Exec. Comm.	1,115.45
Rep. and delegates, expense	1,257.09
Dues and allotments	1,491.50
Salaries and honoraria	2,464.45
Journal	5,283.50
Brochure	41.55
Committees	2,064.76
Seminar:	
1955	3,349.91
1956	812.30
Stat., mimeog., off. supp.	544.70
Post., tel., tel.	320.97
Miscellaneous	4.65
Contingency	0.00
<b>Total Disbursements:</b>	<b>\$18,750.83</b>

**REPORT OF THE EXECUTIVE COMMITTEE CHAIRMAN**

Since the May, 1955, report of the Executive Committee, meetings of the Committee were held at Miami Beach, Florida, April 29-30 and May 4, and at Ann Arbor, Michigan, November 17-18. The minutes of these meetings have been distributed to the deans of all member colleges and published in the pages of the *Journal*.

**Joint Meeting with the American Council on Pharmaceutical Education**

In addition to the meetings of the entire Executive Committee, President Tice, Secretary Deno, and Chairman Zopf represented the Executive Committee and the Association at a joint meeting with the American Council on Pharmaceutical Education held at Chicago, January 4. This meeting would normally be attended by all members of the Executive Committee; however, because of difficulty in arranging a suitable and convenient date for both the Council and Executive Committee, the Executive Committee was represented only by these officers.

The Executive Committee has found it beneficial to have a joint meeting with the American Council on Pharmaceutical Education. Until now the Executive Committee and Council were able to schedule their individual meetings so they would overlap and provide opportunity for a convenient time for both to convene. The early date of our annual meeting, however, makes it necessary for your Executive Committee to meet in the fall, preferably not later than early November. An early December meeting is a possibility for the Council. Objection to a third meeting of the Executive Committee is largely financial, and it is hoped that ways and means can be developed for the continuation of this very productive conference, possibly early in December. Consensus was that the two bodies should



attempt to meet together in 1957 and the years following to discuss especially problems of adoption of the extended program.

At its meeting in Chicago the Council passed a resolution stating requirements for accreditation after July 1, 1960 include provision of the five year program as a minimum for entering students.

At the joint meeting the Council and representatives of the Executive Committee discussed at considerable length ways and means for properly informing institutions planning to start instructional programs in pharmacy concerning needs to be met before such programs are undertaken. Upon the possibility of establishment of a new college, a joint effort was agreed upon as the best means of procuring information at an early date. The deans of our colleges were asked to notify the Secretary of our Association of new colleges contemplated, and the Board secretaries were requested to notify the Secretary of the National Association of Boards of Pharmacy, and these officers in turn will notify the Secretary of the American Council on Pharmaceutical Education. If formation appears to be seriously considered, the Secretary of the Council will offer the services of the Council's Director of Educational Relations, without cost to the institution, to outline completely requirements for Class A accreditation.

Dr. Melvin Green outlined a situation at Northeast Louisiana State College where currently courses in pharmaceutical orientation and in the history of pharmacy are being offered, and where addition of a course in pharmaceutical calculations is being anticipated. Dr. Green suggested the deans of colleges of pharmacy be alerted to the fact that accredited and member colleges are not authorized to extend credit for professional courses completed in non-professional colleges. This information has been distributed by our Secretary to the member colleges, but is reiterated here because your Executive Committee believes this to be a matter which may increase if the member colleges are not aware of the possibility.

#### Report on Admissions to Schools and Colleges of Pharmacy, 1954-55

The following tabulation of admissions to member schools and colleges of pharmacy is based upon the data submitted to the Chairman of the Executive Committee which include all students admitted during the school year 1954-55. The data for the 1955-56 report have not been compiled as of this date, and this report is included at this time so that it may become a part of our permanent record.

#### Admissions to Schools & Colleges of Pharmacy, Academic Year 1954-55

	Freshmen		Adm. With As		Adm. As		Adm. As Special		Total	
	Adv.	Stg.	Stg.	Soph.	Jr.	Sr.	Students	Adv.	Stg.	Total*
Men	2,896	692	1,405	41	9	11	(2,147)			5,054
Women	452	94	182	11	7	1	(294)			747
Total	3,348	786	1,587	52	16	12	(2,441)			5,801

\*Includes 74 member colleges in continental United States and the University of the Philippines and the University of Puerto Rico.

Forty-two percent of the students admitted were admitted with advanced standing. For purpose of comparison, the following figures give the total number of students admitted from 1951 to 1955.

Total students admitted	1951-1952	5,766
Total students admitted	1952-1953	5,464
Total students admitted	1953-1954	5,590
Total students admitted	1954-1955	5,801

Provided the Association continues to meet in the month of April, the Chairman of the Executive Committee will in the future solicit this information from the colleges of pharmacy as of February 10. If the colleges

cooperate, we can expect to have future reports for the current year given in the Chairman's report at our annual meeting. If 100 percent cooperation is not possible, then the report will have to be distributed from the Chairman's office at a later date and reported officially at the next annual meeting.

Please observe that we have omitted the tabulation of number of graduate students from the report of 1954-1955. Unfortunately certain of our colleges fail to give this information on the assumption that graduate students are not enrolled in the college of pharmacy. The Executive Committee believes this information to be desirable and useful, and we will therefore continue to ask for such data. We encourage the deans to furnish us with an accurate report.

#### Report of Degrees Conferred, 1954-55

The member colleges have received by mail the report of the degrees conferred by schools and colleges of pharmacy for the academic year 1954-55, and the following tabulations are included in this report again as a matter of official record.

<i>Report of Degrees Conferred Academic Year 1954-55</i>				
	B.S. in Pharmacy	M.S.	Ph.D.	Honorary*
Men	3,084	95	63	13
Women	333	17	5	0
Total	3,417	112	68	13

\* Includes honorary degrees as follows:

- 6 Doctor of Pharmacy
- 4 Doctor of Science
- 1 Doctor of Pharmacy Administration
- 2 Master of Pharmacy

#### Report on Enrollment in Schools & Colleges of Pharmacy, 1955-56

Distribution of itemized report on enrollment in schools and colleges of pharmacy was made to all member colleges, The American Foundation for Pharmaceutical Education, the National Association of Boards of Pharmacy, the pharmaceutical press, the Chain Drug Store organization, and other interested persons as of December 16, 1955. A comparison of the enrollment data based on enrollment in the continental United States for the current and preceding four years follows:

	1951-52	1952-53	1953-54	1954-55	1955-56
Freshmen	3,823	3,775	3,866	4,183	4,327
Sophomores	4,863	4,275	4,112	4,434	4,820
Juniors	4,437	4,202	3,748	3,609	3,865
Seniors	4,491	4,316	4,024	3,540	3,533
	(1)	(2)	(3)	(4)	(5)
Total	17,669	16,639	15,799	15,782	16,658
Graduates	514	596	570	612	602

- (1) Includes 55 special students
- (2) Includes 71 special students
- (3) Includes 49 special students
- (4) Includes 16 special students
- (5) Includes 113 special students

This report shows the largest total enrollment in all schools and colleges of pharmacy in the United States since 1951. The report covers registration during the first semester, quarter or term of 1955-56 in all schools and colleges of pharmacy in the United States and includes reports of the University of the Philippines and the University of Puerto Rico. The grand total includes enrollment in the 74 member colleges in the United States, one non-member college, and the enrollment of the University of the Philippines and the University of Puerto Rico.

For the second year provision was made on the report forms for the listing of all new students admitted to the college of pharmacy, indicating those students admitted directly from high school and those admitted with previous college training. A total of 5,506 new students were admitted to the colleges in the United States, 2,263 of which (or 40.1%) were listed as having some previous college training. The total freshmen enrollment of 4,327 represents the fourth consecutive year for an increase in the number of students entering the colleges of pharmacy since the fall of 1952, and represents an increase of 3.4% over last year's entering class. It is gratifying to note the increase in total enrollment, a number which represents the highest figure in colleges of pharmacy since the fall of 1951, and means a 5.5% increase over last year. Based on the number of students now listed as freshmen, sophomores, and juniors, we may expect an increase in the number of graduates from our colleges of pharmacy effective 1957.

The variations in curriculum pattern of our colleges of pharmacy at the present time and the individual college regulations regarding enrollments make it difficult to give a true picture of college of pharmacy enrollments. A few member colleges enroll pre-pharmacy students in the college of pharmacy. The majority of the colleges, however, can not list pre-pharmacy students as enrollees in the college of pharmacy, and in many instances have no means to determine the number of potential pharmacy students enrolled on campuses unassociated with the college of pharmacy. Since a major number of our colleges have expressed favor to the 2-3 program, it seems reasonable that the Association, in order to be fair to all colleges, should publish information primarily on enrollments in the last three years of the professional curriculum. The Executive Committee is considering a revision of the report form, and I assure you would welcome any reasonable suggestions as to methods of obtaining greater accuracy on enrollments.

#### Recommended Changes in the Constitution and Bylaws

Under date of December 9, 1955, each member college received a communication from the Chairman's office listing a recommended change in Article 1, 7b of the Bylaws. Since there have been several questions relative to the language and interpretation placed on this recommended change, perhaps it is well to outline the thinking of the Executive Committee regarding this proposal.

Essentially the purpose of the amendment was (1) to retain the present degree requirements, (2) to adopt the proposed degree requirements effective April 1, 1965, for all member colleges, and (3) to suggest the possibility of adopting the proposed degree requirements by those schools currently on the five year program at a date earlier than April 1, 1965, if they elected to do so. The proposed revision follows:

The degree of Bachelor of Science (B.S.) or Bachelor of Science in Pharmacy (B.S. in Phar.) and these degrees only, may be given for the completion of the required course, except that on and after April 1, 1965, in each member college, the degree of Bachelor of Science in Pharmacy (B.S. in Phar.) or Bachelor of Pharmacy (B.Pharm.) shall be given for the completion of the prescribed course. If the candidate for either of these degrees meets the institutional requirements for the degree of Bachelor of Arts or of Bachelor of Science prior to or at the time of completion of the prescribed course, these degrees may be awarded in addition to the professional degree. It is further excepted that, upon requirement of the completion of not less than five full academic years of training of each candidate for a degree in pharmacy, the provisos effective in each member college on and after April 1, 1965, may apply if a member college so desires.

Also for inclusion at this meeting is the recommended change in Article VIII of the Constitution, dealing with the composition of the Executive Committee. The Committee on Constitution and Bylaws submit the following revision, with the approval of the Executive Committee:

**Executive Committee.** The Executive Committee shall consist of a Chairman, the President, the Vice-President, the Secretary-Treasurer, and the immediate Past-President of the Association, and four accredited delegates, two of whom shall be elected each year from at least four nominees, and who shall hold office for two years.

This recommended change, if approved, reduces the number of members to nine, five ex-officio and four elected, eliminating the Editor as an ex-officio member of the Committee. The Executive Committee has indicated that, in keeping with the current policy, we will invite the Editor to all meetings of the Executive Committee for purpose of keeping him informed.

#### **Graduate Education**

The members are urged to cooperate to the fullest extent with the Special Committee to Study Graduate Education in Pharmacy. Especially are you encouraged to attend a meeting of this section on graduate instruction this evening where the problems for hospital pharmacy will be considered. This is one of the most rapidly growing segments of our educational program. We must be certain that the standards set for this specialty are academically as well as professionally acceptable. It would be unfortunate to permit unqualified personnel to guide any portion of this program. The colleges of pharmacy should have an intimate liaison with the internship relationship with an accredited hospital. This and other areas of our graduate instruction will profit through the efforts of this committee, and since many of our colleges are young and inexperienced in regard to graduate instruction, we should give considerable thought to the recommendations of our colleagues now offering advanced training.

#### **American Journal of Pharmaceutical Education**

The sincere congratulations of the Executive Committee go to our new Editor, Dr. Melvin R. Gibson, for the excellent job on his initial issue. Dr. Rufus A. Lyman has for many years championed, edited, and guided the efforts of the *Journal*, and it will always remain as a memorial to his many achievements in the field of pharmaceutical education.

The *Journal*, no matter how well edited or how numerous are the articles within its cover, will fail unless given financial support by those immediately concerned with pharmaceutical education and from others who have reason for aiding and improving the cause of pharmaceutical education. Our *Journal* is and has been a dignified publication. Its pages reveal many important contributions to pharmacy, and there should be sufficient interest and pride on the part of every teacher of pharmacy to have his name on the list of subscribers. The American Foundation for Pharmaceutical Education has contributed to cover a part of the cost of this *Journal*, and it is hoped they will continue to do so. However, the pharmaceutical educators must exhibit more interest if we are to retain a high class journal and especially if we are to continue to call upon the Foundation for aid in its support.

#### **American Foundation for Pharmaceutical Education**

A detailed report on the activities of the Foundation will be brought to your attention elsewhere on this program. However, I would like to remind the members of the three major areas of Association activities now receiving financial support from the Foundation:

1. Support of the Teachers' Seminar.
2. Underwriting of the Recruitment Aids Program.
3. Support of *The American Journal of Pharmaceutical Education*.

Each of these grants is for a specific project, and the funds can be used only for the purpose for which they were granted. Detailed financial reports are made to the Foundation as to disbursement of all funds received from them.

To clarify the position of the Executive Committee and in keeping with the formally approved policy code of the Association, all requests for funds by individuals or committees of the Association for Association activities to the American Foundation for Pharmaceutical Education, or any other foundation, must be cleared with the Executive Committee prior to initiation of the request.

#### **Recruitment Aids Program**

Dr. Brodie will present the report for the Recruitment Aids Committee; however, it is proper that I should indicate here that you will have opportunity to preview two of the films resulting from the Committee's activities. When viewing these films, please endeavor to see them through the eyes of a high school student. They were designed especially for this purpose, and are intended to inform and recruit qualified high school youngsters. The Committee has had professional consultation and guidance in the production of these films, and has employed professional persons for the actual production and filming. A major problem currently under consideration is the method of distribution. It is assumed, of course, that all colleges will want prints of the film, and these will be made available at as reasonable a cost as the project will warrant. To be productive the films must be available to high school guidance and counseling personnel, and you may be certain that the Committee is making every effort to make such arrangements in as convenient and expedient manner as time and finances will permit.

#### **Brochure, "Shall I Study Pharmacy"**

The third edition now in preparation will be available in about one year. In the meantime, a second printing of the second edition will fulfill all needs for the spring, summer, and fall. The immediate details of preparation are under the direction of Dr. Donald C. Brodie of the University of California, who will be glad to hear from you if you have recommendations for changes in the subsequent edition.

#### **Questionnaire**

The serpent again rears his ugly head! Questionnaires and surveys by committees of the Association must be cleared with the Chairman of the Executive Committee to avoid needless duplication and unnecessary collection of data already available. On receipt of such approval, the questionnaire is to bear the notation of approval for the information and benefit of the individuals who are requested to complete it. Inquiries originating outside of the Association may be answered on the basis of personal feelings, and it is suggested that the return form include a statement that the individual is not answering as a representative of the AACP. Each of us, I believe, will agree that the number of questionnaires is extending beyond the usefulness originally intended for this form of survey.

#### **Expansion of Activities of the Association**

During the past decade our Association has each year expanded the services available to its members, and requests for additional services never seem to terminate. It is not intended that they should, but it is important to remember that requests of this kind involve time and personnel, and time affects our budget. The Executive Committee carefully reviews all requests and approves to the limit of the budget those projects which they believe will be of greatest value to the membership of the Association. Printing, mailing, mimeographing and compilation of data for the development of reports and brochures are costly. We are trying to be objective in our review of requests; however, we are now in a position where we must scrutinize all new projects before adopting them, unless there is a desire of the membership to increase the dues of the member colleges. Your Executive Committee refrains from recommending any advance in its dues, and therefore will find it necessary to adopt a very conservative program.

#### **Secretary-Treasurer of the Association**

At his own request Dr. R. A. Deno will not be a candidate for reelection

as Secretary-Treasurer of the Association. His service of three years has passed all too quickly for the Association, for pharmacy, and for your Chairman. Recognition of the contributions made by Dr. Deno can best be exemplified by a review of the activities which have taken place during his tenure. Dr. Deno has been unselfish with his own time, and his successor will find a difficult standard to maintain. Few of us in this room have any conception of the demands upon the time and energy of the Secretary-Treasurer. I am certain you join with me in extending a vote of thanks to Dr. Deno for his outstanding service to the Association.

Louis C. Zopf, Chairman  
Executive Committee

#### REPORT OF THE SECRETARY OF THE AMERICAN COUNCIL ON PHARMACEUTICAL EDUCATION, INC.

The following constitutes the twenty-fourth annual report of the American Council on Pharmaceutical Education, Inc., to its sponsoring organizations, the American Pharmaceutical Association, the National Association of Boards of Pharmacy, and the American Association of Colleges of Pharmacy. It covers the period from May 1, 1955, to April 1, 1956.

##### The Council and Board of Directors

**Membership.** The Council is composed of ten members who also constitute the Board of Directors. Each of the three sponsoring organizations appoints three representatives to serve as members of the Council, and the American Council on Education appoints one representative to serve as a member. The present membership of the Council is as follows:

	Term Expires
Representing the American Pharmaceutical Association	
George D. Beal, President, Pittsburgh, Pa.	July 1, 1956
Robert P. Fischelis, Washington, D.C.	July 1, 1958
L. L. Riggs, Portland, Ore.	July 1, 1960
Representing the American Association of Colleges of Pharmacy	
B. V. Christensen, Vice President, Columbus, Ohio	July 1, 1956
H. H. Schaefer, Brooklyn, N.Y.	July 1, 1958
Tom D. Rowe, Ann Arbor, Mich.	July 1, 1960
Representing the National Association of Boards of Pharmacy	
P. H. Costello, Secretary-Treasurer, Chicago, Ill.	July 1, 1956
Frank W. Moudry, St. Paul, Minn.	July 1, 1958
Robert L. Swain, New York City, N.Y.	July 1, 1960
Representing the American Council on Education	
Edward C. Elliott, Lafayette, Ind.	July 1, 1960

**Executive Officers of the Council.** At the annual meeting of the Board of Directors held in Chicago, Illinois, on January 4-6, 1956, George D. Beal, B. V. Christensen, and P. H. Costello were elected to serve respectively as President, Vice President, and Secretary-Treasurer for the ensuing year.

**Director of Educational Relations.** Dr. Melvin W. Green who has served as Director of Educational Relations since September 1, 1952, will continue to serve in that capacity during the ensuing year.

**Meetings.** The Council held two meetings during the period covered by this report. The Annual Meeting, preceded by the regular annual meeting of the Corporation, occurred on January 4-6, 1956. This meeting, which was held at the Palmer House, Chicago, Illinois, included a joint meeting with representatives of the Executive Committee of the American Association of Colleges of Pharmacy. A meeting of the Council was held, also, at the Palmer House, Chicago, Illinois, June 23-24, 1955.



**Changes in Council Standards for Accreditation.** At its meeting in January, 1956, the Council passed a motion to the effect that "on and after July 1, 1960, no college of pharmacy would be eligible for accreditation unless it provided an overall five year educational program." It is the sense of the Council that this ruling is not in conflict with the action taken by the American Association of Colleges of Pharmacy providing that graduation on and after 1965 is from a five year program only.

By compliance with this Council ruling, it will be possible for students who wish to enroll in the fall of 1960, to complete the five year program and be eligible to graduate in June, 1955, to do so.

The Council instructed the Director of Educational Relations and the Secretary to present to the Council at a later meeting such changes as they deemed necessary in order to make it mandatory for colleges of pharmacy to require the completion of an overall five year program of collegiate education for graduation after a specified date in order to retain accreditation by the Council. Such standards are being revised and their revision will take the usual path.

**Examination of Colleges.** During the period covered by this report, 21 of the 74 accredited colleges were examined for the purpose of continuation of accreditation or reclassification. In addition several informal visits were made to colleges of pharmacy either at the request of the college or for informal advisement. It is the opinion of the Council that this service can be of substantial assistance to the colleges by bringing experience and information to the college in a more leisurely fashion. The Director of Educational Relations participated in all visits and examinations but two. At formal examinations, the Director, at least one member of the state Board of Pharmacy, and one Council member usually participated. Council members participated as follows: Dr. Swain in 2, Dr. Fischelis in 1, Dr. Schaefer in 1, Dr. Beal in 2, Dr. Costello in 2, Dr. Rowe in 5, Dr. Elliott in 6, and Mr. Riggs in 2. Every college which requested examination during this period was visited.

In addition to the examinations and visitations, each college filed an annual progress report with the Council. The report is filed each year before November 1 and represents changes during the previous academic year. This report to the sponsoring organizations as to the status of the colleges represents, consequently, the situation during the academic year 1954-55 supplemented by findings upon examination during 1955-56 up to April 1 and, sometimes, correspondence and other material.

The following represents a brief summary of the situation in our colleges from such sources:

**Physical Plant.** Two new buildings, one for pharmacy only and one shared with other health sciences, were completed and occupied during the year; in addition two new buildings were started. Extensive remodeling took place in two schools, one to the extent of about \$250,000. Three schools are actively making plans for new buildings. Six schools have added more laboratory space and four schools have either new or improved animal quarters.

Two new pharmacy libraries were started during the year and two new medical science libraries, shared with pharmacy, were started and appropriations were made for an additional health science library. Three new pharmacy librarians were hired during the period.

**Administration.** New presidents were inaugurated in four institutions during the year. One institution reported an administrative change whereby pharmacy will become a part of a new health center. One university has a new provost and one a new vice president in charge of the health science center. During the year three pharmacy deans retired and two new deans were appointed. In addition four assistants or



associate deans have been appointed. One college has become a school and another a division.

**Teaching Personnel.** Losses of professional teaching personnel during the year were about the same as last year; 5 deaths, and 34 retirements or resignations. Offsetting this loss was the addition of 5 full professors, 9 associate professors, 21 assistant professors, 17 instructors, and 15 part-time instructors or lecturers.

During the year the professional staff published 358 papers and was granted one U.S. Patent. In addition 8 faculty members were either principal authors or co-authors of books. Distribution of publications among schools was as follows: 10 schools had no publications, 26 had 1 to 5, 9 had 6 to 9, 3 had 10 to 14, 5 had 15 to 20, 3 had 21 to 30, and one had 40. Staff salaries were generally improved.

**Program.** No extensive changes were made in curricula during the year. Planning for the five year program continues to take place.

Several schools indicated various ways in which screening of students was improved as well as general tightening of academic standards.

Thirty-five schools reported seminars and other in-service programs for continued education of the practicing pharmacist.

**Miscellaneous.** During the year five schools reported the installation of Rho Chi chapters. The four Michigan schools participated in a cooperative survey of pharmacy's educational status and needs in the state. One college made a survey, with recommendations, of pharmaceutical service in 14 public institutions in the state. Seven schools reported outside research grants for the first time or grants of unusual size, one being for \$50,000. Two schools reported the formation of pharmacy advisory councils and one a pharmacy foundation. Several schools indicated increased interest in their alumni, stepped-up recruitment (one school produced a recruitment film), financial campaigns, and closer cooperation with state pharmaceutical associations.

**Activities of the Director of Educational Relations.** The following meetings were attended by the Director during the year: two meetings of medical science accreditors, executive committee of the Middle States Association, Lilly's Industrial Seminar, and the USP Executive Committee. Several major addresses were made during the year as follows: "Pharmaceutical Education Has Two Faces"—Districts No. 7 and 8, Pocatello, Idaho; "A Philosophy of Pharmaceutical Education"—Hospital Pharmacy Institute, University of Chicago; "Progress and Problems in Graduate Instruction in Pharmacy"—American Association of Colleges of Pharmacy, Miami; "Pharmaceutical Education"—University of Wisconsin Extension Center, Milwaukee; "Summary of the Seminar"—Pharmacy Teacher's Seminar, Indianapolis; "Pharmacy and the Wisconsin Idea"—dedication of a new wing for pharmacy on the pharmacy-chemistry building, University of Wisconsin, Madison; "Professionalism and Unity"—District No. 5, Student Branch, A.Ph.A., Cincinnati, and "The Evaluation of Foreign Students of Schools of Pharmacy for the Purposes of Being Recognized for State Board Examinations"—District No. 4, Toledo.

The Director participated in the following outside activities related to pharmacy: chairman, subcommittee number 10 and member of Executive Committee of the USP; vice-chairman of the Conference of Teachers of Graduate Instruction, AACP; member of the Committee to Study Graduate Education in Pharmacy, AACP.

During the year the pharmacy colleges of Michigan called upon the Director for counsel with respect to a survey of pharmacy needs for the near future in the state. The Director was called upon by the directors of research from two pharmaceutical firms for advice and counsel with respect to graduate education and pharmaceutical education in general. In addition the Director asked for and was granted a con-

ference with principal department heads employing pharmacists at a large pharmaceutical company.

**Joint Examinations with Regional Agencies.** During the period covered by this report, the Council participated in examinations of schools of pharmacy simultaneously with the examination of institutions as a whole by regional accrediting agencies. One institution was examined concurrently with an institution-wide accreditation by the Middle States Association. One such examination took place in cooperation with the Western College Association. At two examinations observers from the Northwest Association were present, and at four examinations a representative of the North Central Association was a part of the examining team as generalists, in conformity with the policies of these regional associations.

**Published List of Accredited Colleges.** The latest listing of accredited colleges (July 1, 1955) contains the names of seventy-four accredited colleges of pharmacy and was unchanged at the January meeting of the Council. Sixty-nine of these colleges are designated as Class A, 2 as Class B, and 3 as Class C.

**Special Project.** This year the special report was concerned with aims and objectives of the colleges of pharmacy. The introductory statement attached to the questionnaires is reproduced here:

Each year at the time of the request for the Annual Progress Report it has been customary for the Council to survey some particular aspect of pharmaceutical education such as library, graduate instruction, student-faculty ratio, etc. At this time, the Council is especially interested in the aims and objectives of the various colleges in terms of the types of institutions they represent and the clientele they serve and in relation to self-study and experimentation on the part of the institution. While the aim of the attached questionnaire is to secure information, quite frankly, it is also hoped that the questionnaire will stimulate many colleges to reevaluate their positions and programs.

As you are aware, there are many types of colleges of pharmacy. Some are independent and self-contained; some are affiliated with more or less complex colleges and universities; some are state, municipal, or federal supported while others are supported by private endowment or church affiliation. There are pharmacy colleges that are parts of large universities, but are substantially self-contained. Some colleges are part of health science centers with varying degrees of integration. The clientele of the colleges varies likewise. In some cases the college serves a predominantly rural area while in others urban clientele is the rule. Proximity to seats of government, pharmaceutical manufacturing, peculiar geographic and climatic conditions can, and often do, determine, in part, the character of an institution. Advantage of these factors may be taken by developing special courses or slanting the more usual courses, and by developing special services. For example, colleges serving a rural area may place emphasis on "rural pharmacy" in their teaching and may develop special services such as seminars, extension programs, research projects, and the like for the practitioners of the area. Schools located at seats of government may effect close liaison with government officials for various purposes. Special studies and projects leading to improved interprofessional relations are easier to develop in colleges which are part of health centers.

While one of the purposes of the American Council on Pharmaceutical Education is to establish and maintain standards of pharmaceutical education, such standardization is not intended to imply that schools are to appear to be from one mold, but rather experimentation after self-study and self-criticism is to

be encouraged. If every college would periodically evaluate itself and would emphasize improvements in at least one aspect of its program each year a stronger educational picture and a stronger profession would be the result. Such projects need not be elaborate and profound. Progress is movement in a forward direction and is composed of a multitude of small steps.

Evidence that the questionnaire did accomplish some stimulation is found in the quotations below from two of the deans:

1. Let me compliment members of the Council for requesting a report on the aims and objectives of the colleges of pharmacy. Our objectives had been published for many years in our bulletins and catalogs, and we had stated it orally and in the history of the college on many occasions; but your request for a statement fortunately stimulated us to do a critical examination of our goals, which has been done in several faculty meetings.

2. It should be noted that we have not previously published anywhere a clear-cut statement of aims and objectives. We admit that this should have been done long ago, and that the questionnaire of the ACPE has served as a stimulus in bringing this about.

Replies to the questionnaire were received from all schools. In general, most of the aims and objectives statements were well conceived. In several instances, the degree of attainment is open to criticism. In one case, for example, an objective is for the students to acquire social consciousness and yet the curriculum contains no general education other than freshman English. While several of the statements are worthy of recording, the Director wishes to call attention to the following such statements as being particularly praiseworthy in his estimation:

School A. The objective of the College of Pharmacy is to prepare its graduates to assume, with dignity and honor, the intellectual, legal, civic, and moral responsibilities of the profession of pharmacy.

The pharmacist must have a high degree of competency in the scientific and technical knowledge essential to his professional activities. Equally important is the need for developing skill in his personal relations with his patrons, the members of the other healing professions, and his employees. He must be qualified to assume the special responsibilities of instructing and supervising pharmacy interns. He must understand and apply the basic principles of pharmaceutical economics and sound programs of retail store management. In addition, he must show a keen interest in the affairs of the world about him and share with his fellow citizens the benefits of any special talents or abilities he may possess. Above all, he must be able to make good use of his acquired knowledge and experience in arriving at sound judgments and decisions of policy.

The pharmacist is legally authorized and responsible for the purchase, storage, processing, and dispensing of medicines, dangerous drugs, poisons, and narcotics. He recognizes the responsibility which rests upon him by virtue of these special privileges, and that all legal controls provided by statute and regulation exist for the sole purpose of safeguarding public health. Accordingly, he accepts fully his responsibility for strict compliance with the federal, state, and local laws and regulations dealing with the distribution of medicinal products.

The civic responsibilities of the pharmacist are many. Not only must he be a good citizen, but active in civic and community affairs. He must provide leadership in public health education and in civil defense activities and participate actively in the affairs of organizations having charitable, educational,

religious, and cultural functions. He must be qualified to serve either in, or in cooperation with, his local or city government in solving community problems. He must be the type of person who will inspire young people to enter the profession of pharmacy, thus assuring the community of continued pharmaceutical service.

The moral responsibilities include those obligations not necessarily defined by statute or regulation which have been established through long tradition and common practice. Foremost among these is the principle that every motivation and every act of the pharmacist must be in the interest of the public. His ethical relationship with the physician, his capacity as a consultant to the public, his constant availability for the dispensing of important drugs in time of emergency, and his charitable services to the needy represent but a few examples of his dedication to the health, welfare, and safety of the public. Such dedication is not acquired through accident; it is, rather, the result of a systematic inculcation of the highest ethical and moral standards throughout the entire curriculum of the College of Pharmacy.

School B. The School of Pharmacy has for its objective the education and training of men and women of ability, integrity, and character to select, identify, prepare, manufacture, and dispense the various agents known as pharmacological remedies; to spread information on the use and value of scientific medicine; to win, and deservedly to keep, public confidence and respect for their profession; to aid the state and federal governments in the control of habit-forming drugs and the enforcement of all laws for public welfare; to encourage original work and study on the part of qualified persons who will make unselfish use of their services in the interests of medical science; and to assist public-health agencies in the prevention and control of disease.

In general, it is the aim of the School of Pharmacy to give students a scientific and professional background that will enable them to keep abreast with changes in the profession and that will also enable them to continue their professional growth and development. Students are made aware of their professional responsibilities and need for them to exercise good judgment in carrying out their duties as pharmacists. They are urged repeatedly to work for the interest of the community health and welfare and to conduct themselves in a manner befitting a professional in keeping with the Code of Ethics of the profession.

School C. One can gain ready acceptance for the view that professional responsibility implies technical competence to handle the types of problems which constitute the work of members of a profession. This means an ability to recognize and define problems as they are encountered, analyze them into their component parts, marshal the pertinent facts, decide what principles and established theories apply to the problem, plan a solution, execute the solution in a logical and efficient manner, exercise judgment concerning the validity of the solution, and, finally, to learn as much as possible from the experience. Education for technical competence must be one important objective of professional education.

But technical competence is not enough; the responsible member of a profession must be concerned with the moral and ethical aspects of his relations with others, including those whom he encounters in his professional work, and with the

social-political-economic implications of his work and the innovations wrought by his work and that of his professional colleagues. Furthermore, he must accept his obligations as a citizen of his community, his state, his nation, and the world.

To sum up the objectives of our school of pharmacy: the training of competent pharmacists and good citizens endowed with the proper professional attitude.

School D. To provide opportunity and encouragement for qualified students to become superiorly qualified pharmacists, with a clear and ethical conception of the role of pharmacy among the health sciences, and to point out the professional avenues open to graduate pharmacists. Emphasis on understanding as opposed to rote memorization, and on organic relationships among basic and professional areas of study are fundamental in the educational philosophy of the college.

To include in the program of every student a core of basic and professional studies in chemistry, biology, and pharmacy culminating in dispensing pharmacy and in pharmacology, aimed at proficiency in the compounding and dispensing of prescriptions and in knowledge of modern drugs. At the same time, to emphasize the function of basic and professional studies as providing a basis for learning in future years the developments in pharmacy that will come after the time of completion of formal study.

To provide sufficient guidance for each student and flexibility in his curriculum so that specialized instruction for one or more of the various fields open to pharmacists may be included in a student's program of study.

To develop an understanding on the part of the student of official and other widely recognized professional reference works, as well as of current pharmaceutical, chemical, medical, and other literature useful to pharmacists.

To encourage extracurricular activities designed to promote professional interest in pharmacy and in the other health professions.

The majority of colleges publish a statement of aims and objectives in the catalogs or other college bulletins, but six colleges apparently publish them nowhere. About half of the colleges have restated their aims and objectives within the past six years, but several have not looked into the matter seriously since the founding of the college. Eight colleges report that the matter is discussed with the faculty at least annually, six indicate discussion every term, and 28 schools indicate that the matter is discussed "from time to time."

In 53 cases, the faculty, as a whole, participated in the formulation of the statement of aims and objectives. Only seven schools indicated no faculty participation whatsoever. In 27 cases no one outside of the college of pharmacy took part in the formulation of the statement, while in many other cases such outside groups as the state board, members of the liberal arts staff, the university curriculum committee, the college advisory committee, special consultants, and members of the central administration were active participants.

The majority of schools apparently do not believe that their clientele is especially unusual. Seventeen schools report that their clientele is predominantly rural while eight report that it is predominantly urban. Seven schools believe that they have an unusually large percentage of persons going into retail pharmacy, three schools are conscious of their proximity to pharmaceutical manufacturing centers, six report the predominating religious character of their schools, and three report the fact that they are essentially for Negroes.

Schools were asked how they adapted programs to meet special

needs of their clientele. In general, most colleges failed to be very specific on this point. Five out of six of the religious colleges require some form of religious or philosophic courses. Eight of the schools with rural clientele have courses in "rural pharmacy." Six schools rely upon electives and two upon adequate counsel to adapt their programs properly. Special seminars are used by three of the schools while four believe that considerable adaptation can take place through extracurricular activities.

The evaluation of the effectiveness of the program in terms of aims and objectives is difficult at best. The majority of schools believe that the general measure of success of graduates is the best criterion. While this is probably true there would appear to be a need for determining success less subjectively than is usually the case. Several schools seek information periodically from the alumni, and three schools have occasional meetings with districts of the state pharmaceutical association or with others representing the state association for this purpose.

The last group of questions in the questionnaire dealt with special projects for 1955-56. Five schools indicated that no such projects were contemplated and five schools are concentrating on recruitment (one is planning a recruitment film). The majority of schools expect to place major emphasis on curricular matters including planning for five year programs. Eight schools expect to place emphasis on graduate programs, either expanding present programs or planning for new ones; seven schools expect to study the feasibility of adding hospital pharmacy programs. Other projects contemplated are: planning for new buildings or expansion of old ones, drives for funds, establishing foundations or advisory councils, strengthening alumni relations, developing predictive tests and screening devices, developing refresher courses or other in-service programs and extension services (thirteen), strengthening the library, mortality studies, development of a pharmacy for the student health service, bringing about closer relations with the state board and with state associations (one school expects to aid the association in establishing a district plan), improving teaching technique, and developing a comprehensive examination. Two schools expect to be celebrating 75th anniversaries during the year, and two schools will be participating in a major self-evaluation with the institution as a whole. One college has asked the alumni to make a major study of the college to determine its effectiveness and its needs.

**Financial Statement.** A financial statement for the last calendar (fiscal) year, January 1, 1955, to December 31, 1955, follows:

January 1, 1955—cash balance on hand \$ 5,293.67

Receipts:

Sponsors' contributions	\$ 3,000.00	
American Foundation for Pharmaceutical Education	25,000.00	28,000.00
		<hr/>
		33,293.67

Disbursements:

Rent and light	\$1,000.00	
Salaries	16,866.64	
Council meetings	2,493.26	
Inspection expense	5,090.16	
Printing	86.00	
Office supplies and equipment	544.83	
Postage, telephone, telegraph, express	507.75	
Miscellaneous, bonds, dues, etc.	497.70	27,086.34
		<hr/>

Cash balance on hand, Dec. 31, 1955 \$ 6,207.33

P. H. Costello, Secretary



REPORT OF THE EDITOR OF THE AMERICAN JOURNAL  
OF PHARMACEUTICAL EDUCATION

In my first report to the Association, I should like to express my appreciation for the confidence it has shown in delegating to me, through the Executive Committee, the editorial responsibility of the *Journal*.

During my brief editorship I have appreciated the advice of Dean Zopf, Dr. Deno, and Dr. Lyman. Their complete cooperation has been of great help.

I am also appreciative of the cooperation of President French, Dean of the Faculty Stephenson, Dean Bang, my colleagues, and the State College Press in facilitating the establishment of the editorial office on the campus of the State College of Washington. At no expense to the Association, a completely equipped office has been provided. In addition I have received every material aid which I have requested.

In the past few weeks I have received many fine letters from all over the country containing favorable comments on the Winter issue. I am glad it was well received. I hope everyone will feel free to comment on the *Journal* and its policies at any time. All comments will be seriously considered and answered.

There has been conjecture concerning the length of time an Editor should hold his office. The Editor, as you know, is elected by the Executive Committee for a twelve-month period. For obvious reasons it is impractical to rotate the job yearly. I shall, if the future issues continue to be satisfactory, retain the editorship for a reasonable length of time. I have no intention of approaching Dr. Lyman's record of nineteen years! At least one member of the Executive Committee has indicated that such is not intended. The job is demanding, and there are few who would be willing to serve so long as Dr. Lyman. In view of these demands which the editorship places upon an individual, I should like to caution the Association against the further burdening of the Editor with assignments beyond the scope of the *Journal* as it is now constituted.

There are certain *Journal* policies which I believe should be defined at this time. It will be the policy in the foreseeable future to follow a regular sequence in the *Journal* contents. The Winter and Spring issues each year will carry a feature section dealing with some aspect of pharmaceutical education. This year, as you recall, the Winter issue carried a series of articles describing the life and work of Dr. Lyman. The Spring issue will have a series of articles on outstanding pharmacy college buildings and will carry some fifty pages of pictures; such will be the pattern of issues one and two each year. The Summer issue will be devoted completely to the proceedings of this Association. The Fall issue will carry the selected papers of the Teachers' Conference of this year to establish a policy for all future Fall issues—issues devoted entirely to the important and excellent papers presented at the conference of the year the issue is printed.

It becomes obvious, then, that contributed articles will be channeled into the Winter and Spring issues, and such policy will, I hope, clear up misunderstanding which has arisen regarding some publication procedures.

Within the past few months it has been my unhappy task to reject a number of papers in Dr. Lyman's large backlog. It would appear impossible in the foreseeable future to publish them all. Some of them, in view of subject content alone, were not suitable for this *Journal*. The *Journal* has a specific role to play in pharmaceutical education, and if its pages are diverted to subsidiary considerations, it must neglect the primary role. I do not believe that the *Journal* has any responsibility to publish review articles on technical subjects of a specialized nature; there are review journals for such offerings. Further, I do not believe the *Journal* has a responsibility to publish writing directed toward the interests of the practicing pharmacists; there are many journals which would be glad to have such articles. Certainly the *Journal* has no responsibility to publish articles which



are of a research nature not allied to the teaching of a subject.

The *Journal* has specific responsibility to the Association to publish its proceedings and the activities of the Executive Committee. But I think its charge to be a journal of *pharmaceutical education* should be closely adhered to. Articles of general interest to all pharmaceutical educators will be given priority in publication, and I hope each issue will always contain articles of this type. The articles of a more specialized nature dealing with teaching in the specific areas will be given secondary consideration, and it is assumed that the latter group will comprise the bulk of the articles published.

The college news section of the *Journal* presents a number of problems. It is my opinion that this is the least-read section in the *Journal*. This section costs in excess of seven hundred dollars a year to print if it continues to cover the pages it has in the past. I think this is a rather high price to pay for some of the material which appears as news. In attempting to bring greater conformity to this section, I have set up certain rules regarding the type of material which I will print. First, I do not believe students activities, unless they are novel and can be adopted by other institutions, should gain publicity through the medium of the *Journal*. I certainly don't think students' names (unless students have received national recognition) should appear on these pages. The names are of local interest only and simply add bulk to deter the reader from the essence of the college activities. Secondly, I do not think the routine activities of a faculty, such as who was made advisor of what, constitute news for national circulation. I shall continue to edit out what I consider to be such trivia. If at any time any collaborator questions my policies in the handling of this section, I hope he will communicate with me so that misunderstandings do not arise.

The college news section is already a very time-consuming section for the Editor. It is compounded in difficulty if news reports from the many colleges come in at odd times throughout the year. This means that a file must be set up for each college and all news rewritten in the light of later dispatches. I am not equipped with a staff for such work. Therefore, I should like to emphasize the importance of news being sent through the collaborators at the times requested and on the forms provided the collaborators four times a year. News submitted at these times reaches me at the latest possible date for publication in the next issue and in a form which enables me to edit it readily. I do not believe this is too much to ask of any collaborator. This policy should also lead to less confusion and misunderstanding about the time of publication of a specific news report. Any announcements to be included in an issue should be submitted at the time the collaborator news reports are due. Each collaborator has received instructions regarding these new policies.

The reaction to the new policies in handling the book review and new book sections has been most gratifying. I have over three hundred volunteer book reviewers in my files, and the reviews submitted to date have been, in the main, excellent. I am now in communication with over one hundred and twenty-five book publishers who will supply me their latest books in the pharmacy and related areas.

It will be my policy to print a yearly index in the Fall issue to eliminate the necessity of a supplement, formerly sent separately with the Winter issue.

I have recommended to the Executive Committee that it include sufficient money in the next budget to allow for printing a cumulative index for volumes 14 through 20 to bring the cumulative indexes up to date. My plan is that the cumulative index should appear in the Fall issue this year. I have also recommended to the Executive Committee that it establish the policy of requiring the Editor of the *Journal* to prepare a cumulative index at the end of every subsequent ten-year period.

All papers which have been turned over to me by Dr. Lyman, a sizable backlog, have been returned to authors or the authors have been notified of

dates of publication. I shall continue to acknowledge, select, and reject articles promptly after receipt.

The *Journal* mailing dates are the fifteenth of February, May, August, and November. Barring unforeseen problems, the *Journal* will be mailed from Pullman on those dates. Please understand it takes a week to two weeks to reach all parts of the country traveling second-class mail.

I think the *Journal* can and must continue to improve to warrant the title of *official publication* of this Association. Every possible effort on my part will be directed toward that end. I ask your cooperation and understanding as I confront the problems of this assignment.

Melvin R. Gibson, Editor

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*That pharmaceutical and premedic training is of mutual advantage to each group we do not deny, but the justification for giving a pharmacy degree for premedic training would be comparable to a Presbyterian Seminary giving a Doctor of Divinity degree to a predental student because teeth are of mutual advantage to both dentists and Presbyterian preachers.*

Rufus A. Lyman, *Am. J. Pharm. Ed.*, 5, 352 (1941)

## STANDING COMMITTEE REPORTS

### REPORT OF THE COMMITTEE ON CONSTITUTION AND BYLAWS

Two proposals for amending the Constitution of the American Association of Colleges of Pharmacy were submitted to this Committee during the past year.

The first of these concerned the personnel of the Executive Committee as specified in Article VIII of the Constitution. This Article stipulates that the Editor of *The American Journal of Pharmaceutical Education* shall be a member of the Executive Committee. At its meeting in May, 1955, the Executive Committee discussed the advisability, as a matter of policy, of having any representative of the Association more or less permanently a member of the Committee. The consensus was that the policy was inadvisable, and it was voted to request the Committee on Constitution and Bylaws to prepare a new draft of Article VIII, eliminating the Editor of the *Journal* as a member of the Executive Committee.

The new draft which has been proposed by this Committee, and which has been submitted to all member colleges as required by the Constitution, is as follows:

Article VIII. Executive Committee. The Executive Committee shall consist of a Chairman, the President, the Vice-President, the Secretary-Treasurer, and the immediate Past-President of the Association, and four accredited delegates, two of whom shall be elected each year from at least four nominees, and who shall hold office for two years.

The second proposal submitted to this Committee concerned the specification of the degree or degrees to be awarded upon the completion of the pharmaceutical curriculum, as outlined in paragraph 7. b. of the Bylaws.

At the request of the Executive Committee, last year's Committee on Constitution and Bylaws prepared a revision of paragraph 7. b., which stipulated that only the distinctive degrees, Bachelor of Pharmacy and Bachelor of Science in Pharmacy, could be awarded by a member college. At a subsequent meeting of the Executive Committee, at which the proposed revision was discussed, it was pointed out that, under existing state laws, one or more of the member colleges could not legally award either of these degrees. It was the consensus of the Executive Committee that still another revision of paragraph 7. b. should be prepared. This revision should, (1) postpone the date on which the distinctive degrees would be mandatory, (2) permit the awarding of the Bachelor of Arts or the Bachelor of Science in addition to the distinctive degree, providing institutional requirements were met and, (3) permit the awarding of the distinctive degrees in advance of the mandatory date, upon completion of the five year curriculum.

In accordance with the expressed desire of the Executive Committee, the Committee on Constitution and Bylaws has prepared the revision of paragraph 7. b. which follows. This revision has been approved by the Executive Committee and has been submitted to the member colleges as required by the Constitution.

7. b. The degree of Bachelor of Science (B.S.) or of Bachelor of Science in Pharmacy (B.S. in Phar.) and these degrees only, may be given for the completion of the required course, except that on and after April 1, 1965, in each member college, the degree of Bachelor of Science in Pharmacy (B.S. in Phar.) or Bachelor of Pharmacy (B.Pharm.) shall be given for the required course. If the candidate for either of these degrees meets the institutional requirements for the degree of Bachelor of Arts or of Bachelor of Science prior to or at the time of completion of the prescribed course, these

degrees may be awarded in addition to the professional degree. It is further excepted that, upon requirement of the completion of not less than five full academic years of training of each candidate for a degree in Pharmacy, the provisos effective in each member college on and after April 1, 1965, may apply if a member college so desires.

Leslie M. Ohmart, Chairman

#### REPORT OF THE COMMITTEE ON CURRICULUM

A meeting of the Committee on Curriculum was held on January 27 and 28 at the Philadelphia College of Pharmacy and Science with the full membership in attendance. The Committee wishes to express its appreciation to Dean Linwood F. Tice for the excellent facilities and conveniences which were provided for its meeting.

The Committee devoted its attention this year primarily to a consideration of the curriculum for the minimum of three years of professional instruction that are required by Article I, Section 7 of the Bylaws which provides for the five year program of pharmaceutical education. In addition we devoted a brief time to discussion of the problem of improvement in supervision of the practical experience requirement, an item referred to us by the Executive Committee.

##### The Curriculum for the Professional Years

Preliminary to its discussion of the curriculum for the three professional years the Committee summarized for itself the reasons and objectives for the five year program. They may be stated briefly as follows:

1. Provision for more general education.
2. Provision for more adequate courses in the basic sciences.
3. More adequate treatment of the professional courses including a better sequence of these courses and the provision for professional options in specialized areas.
4. Better selection of students for entrance into the professional years of training.
5. Reduction in the course load and work load of the students.

The Committee also set down for itself the following general guiding principles to be kept in mind in its consideration of the curriculum for the three professional years:

1. The curriculum should be designed primarily for the 85 to 90 percent of graduates who go into retail pharmacy but flexible enough to provide for specialized training in the form of optional electives for those graduates who wish to go into other fields of activity, such as hospital pharmacy, industrial pharmacy, medical service representatives and graduate work. The Committee believes that this can be accomplished by setting up a common core of required professional courses which would equip the graduate to meet the minimum basic requirements for adequate performance in any field of pharmaceutical practice. Well-chosen elective courses would then provide him with special training in any field of his interest. Some schools may elect to make a definite division in the fourth or fifth year to provide for separate options in retail, hospital, industrial, or graduate fields.

2. Electives should be spread over all three years of professional training if possible in order to permit the student who chooses general education electives to work them in along with his professional required courses.

3. It is not possible in a five year program to include all of the courses and to achieve all of the objectives that have been proposed in previously suggested six year programs. To attempt this would result in the curriculum for the five year program being filled entirely with required courses without any opportunity for electives. For that

reason emphasis should be placed on minimum credits in each professional course in the five year program.

4. The minimum of three years of professional instruction should be based on the basic science courses in the pre-professional program of studies that was recommended by this Committee in its 1955 report (1). These include biology, general chemistry and qualitative analysis, organic chemistry, college mathematics and physics, as well as English, economics, and general education.

The Committee devoted little attention to names, objectives, scope and content of the various courses in the professional years of instruction. These aspects have been treated thoroughly by Blauch and Webster and may be found in their book, *The Pharmaceutical Curriculum* (2).

#### Required Courses in Pharmacy and Professional Orientation

**Pharmacy Calculations.** The Committee was unanimous in its opinion that this should be a required course; there was divided opinion whether it should be a separate course or a definite segment of the beginning course in pharmacy. There should be a minimum of 1 credit devoted to it. If given as a separate course it might well be given concurrently with the beginning course in pharmacy and should be closely coordinated with that course. Emphasis should be placed on making the course more meaningful and applicable to pharmacy and application of the material covered in this course should be made in all the subsequent courses in the professional years. The Committee is aware of the criticism that pharmacy graduates do poorly in this field on their state board examinations. This may be due in part to the fact that instruction in pharmacy calculations is given in the early part of the curriculum with little application in the later professional years. The Committee believes that some thought should be given by the schools to a review and a refresher in certain aspects of pharmacy calculations in the last year of the curriculum. We believe also that improvement might be made by giving more attention to teaching methods in this course. A course of this type cannot be given effectively by the lecture method or in large groups but should be presented by the recitation and discussion method in small classes.

**General Pharmacy 1.** By this is meant the course described as "Pharmaceutical Preparations" in Blauch and Webster (2). This course should carry a minimum of 4 credits, not including pharmacy calculations and orientation, and should include laboratory work as an integral part of the course. Prerequisites should include physics and organic chemistry and the course should be given in the third year of the five year program.

**General Pharmacy 2.** By this is meant the course described in Blauch and Webster as "Pharmaceutical Technology" (2). This course should carry a minimum of 4 credits including laboratory. There was divided opinion within the Committee on the question of whether this course should be preceded by the course in physical pharmacy or should precede that course in the curriculum and also on other prerequisites for the course. It was agreed that it should be given in the third or fourth year of the five year program and should precede dispensing.

**Physical Pharmacy.** This is a new area of study in the pharmacy curriculum, and there is not yet unanimity of opinion on what its prerequisites, purpose and objectives, scope and content, and place in the curriculum should be. The Committee recognizes two opposing schools of thought on this area at the present time. The position of one school is reflected in the description of this course given by Blauch and Webster (2) as the application of physico-chemical principles and laws to the preparation and study of pharmaceutical systems. This implies a prerequisite background in calculus and physical chemistry to provide for a quantitative, mathematical physico-chemical treatment of the subject.

Keeping in mind the overall objectives of the five year program and the guiding principles laid down for its discussion, the Committee believes that a compromise must be reached somewhere short of this ideal in most schools. Inclusion of courses in calculus and physical chemistry in the curriculum would necessitate the elimination of elective credits that could be used for general education or for professional options.

The opposing school of thought believes that a course in physical pharmacy adequate for the needs of the retail pharmacist can be given with college mathematics, physics, organic chemistry, and quantitative analysis as prerequisites. It is recognized that such a course would not treat the subject on the same level as a course which has calculus and physical chemistry as prerequisites but there is a question as to whether there exists now or will exist in the future a need for that type of physical pharmacy in the practice of the profession on the retail level.

Some believe that the course in physical pharmacy should precede general pharmacy 2 (pharmaceutical technology) and dispensing in order that the principles learned in the course in physical pharmacy might be applied to the work in those later courses in the professional training. Others believe that the course in physical pharmacy might be a type of terminal course in the curriculum.

The Committee is in agreement that there does exist a field of study and a body of knowledge which may be described as physical pharmacy and that the five year program should include a required course which carries a minimum of 4 credits in this field. Whether or not laboratory is an integral part of the course is a matter for local decision on the part of the various schools. Minimum prerequisites for the course should include college mathematics, physics, organic chemistry, quantitative analysis, and general pharmacy I. It should be emphasized that the course in physical pharmacy should not be a stepped-up course in fundamental principles and processes. We are aware that all schools do not have teaching personnel to handle this area adequately at the present time, but we wish to point out that developments and progress are being made rapidly in the field and that the personnel situation should improve in the future. We suggest that the questions of prerequisites, objectives, scope and content, and upgrading of teaching personnel in this field be made the subject of continuing discussion in the Section of Teachers of Pharmacy and the Teachers' Seminars.

**Dispensing and Manufacturing.** There is no question of the necessity for dispensing in the curriculum. There is a feeling within the Committee, however, that some attention should be given to the future direction of this course with a view to placing less emphasis on the compounding and extemporaneous formulation aspects and more emphasis on the manufacture of prefabricated medication. Since the pharmacist is becoming less and less a compounder and more and more a dispenser of prefabricated medication there is the feeling that the student should get some understanding of the background and problems involved in the manufacture of prefabricated products by practice in pilot plant manufacturing processes and production. This should be done by devoting some time in the professional years to this subject. The Committee suggests that consideration be given to including 2 credits of manufacturing pharmacy and 6 credits of dispensing in the curriculum. It is recognized that not all schools are adequately equipped either in personnel or facilities to provide work in manufacturing pharmacy at the present time on a required basis. It is believed, however, that all schools should give thought to this possibility in their future plans.

**Pharmacy Orientation.** This course should be a requirement in the pharmacy curriculum. The need, objectives, and scope of such a course are described by Blauch and Webster (2). The course should come not later than the third year of the five year program and, depending upon the pattern of the curriculum, might well be given in one of the pre-



professional years. Certainly it should be given at the first opportunity. The Committee feels that the matter of credits for this course depends to some extent on the local situation. Where the curriculum permits it, 2 credits might be given for the course. On the other hand, there is no serious drawback to giving the course on a non-credit compulsory attendance basis.

**History of Pharmacy.** While the Committee is sympathetic to the needs and values of such a course as set forth by Blauch and Webster (2) we are not recommending it as a required course. We recognize that there is a lack of properly qualified teaching personnel in the schools to treat this subject adequately. We encourage those schools which are fortunate enough to have a qualified teacher to make this a required course in their curriculum. For other schools we believe this is one of the most desirable electives, and we urge all schools to give thought to development of this subject. The course in the history of pharmacy, if given, should be a substantial course carrying not less than 3 credits and it should be given in the fourth or fifth year of the program.

**Ethics.** The position of this Committee on the subject of ethics was set forth in its 1955 report in which we urged this as a required course in the curriculum (1). The course should carry a minimum of 1 credit and it may be combined with pharmaceutical law or with history of pharmacy as a separate segment if the proper instructor is available. If not, it should be given as a separate required course for 1 to 2 credits in the fifth year.

#### Required Courses in Pharmaceutical Chemistry

**Quantitative Analysis.** This course should carry a minimum of 4 credits including laboratory and should be given in the third year of the five year program.

**Inorganic Pharmaceutical Chemistry.** This course should carry a minimum of 3 credits and might be given concurrently with or after general pharmacy I in the third year of the five year program. The Committee feels that laboratory work is not an essential component of the course and that if laboratory is given it should not consist merely of the preparation of inorganic pharmaceutical preparations such as might well be prepared in the laboratory work in general pharmacy I.

**Drug Assay.** This course should carry a minimum of 4 credits including laboratory and could best be given in the fourth or fifth year of the five year program. The Committee would urge all schools to take note of the increasing application of instrumental analysis to pharmaceutical products in its planning for this course.

**Pharmacy and Chemistry of Medicinals.** By this is meant the course of similar title described by Blauch and Webster (2). This course should carry a minimum of 6 credits over two semesters. Laboratory work is not considered an essential part of the course. It should be given preferably in the fourth or fifth year with biochemistry and microbiology as its prerequisites and should be coordinated as closely as possible with the instruction in pharmacology.

#### Required Courses in Pharmaceutical Biological Sciences

**Pharmacognosy.** A minimum of 6 credits over two semesters should be devoted to this course with prerequisites of organic chemistry, biochemistry, and microbiology. It should be given preferably in the fourth year. The Committee believes that laboratory should be an integral part of the course for at least one semester although it recognizes that this may be a matter for local decision and that where the course in pharmacognosy is closely coordinated with another course, such as biochemistry, some of the laboratory aspects of pharmacognosy might be given in another course.



**Microbiology.** This course should carry a minimum of 5 credits including laboratory and should be given not later than the third year in order that some of its applied aspects might be utilized in later professional courses such as pharmacognosy and the pharmacy and chemistry of medicinals.

**Biochemistry.** This course should carry a minimum of 5 credits including laboratory, and it should be given as early as possible in the professional sequence, preferably in the third year following quantitative analysis, in order to serve as a prerequisite for some of the later professional courses. The course in biochemistry should be a general introductory course and not a course in some of the special aspects of biochemistry such as urinalysis, blood chemistry, etc.

**Physiology.** This course should carry a minimum of 6 credits over two semesters and should preferably be given in the fourth year as a prerequisite for pharmacology. In the opinion of the Committee a laboratory in this course is desirable but not essential if the class work is supplemented by judiciously selected audio-visual aids.

**Pharmacology.** This course should carry a minimum of 8 credits including laboratory and should be in the fifth year. In the opinion of the Committee a laboratory is essential for one semester of this course and while desirable in the other semester it is not essential.

**Public Health.** Because of the position of the pharmacist in the public health profession a minimum of 2 credits in a course in public health is considered essential in the professional curriculum. It is preferable that this course be given in the fifth year.

**First Aid.** This course is also considered essential in the professional training of the pharmacist and should be a required course in the curriculum. Depending upon the local situation it may be given for 0 to 2 credits, preferably in the fifth year. If the curriculum of the particular school permits it, 2 credits toward graduation might be given for the course. If the curriculum does not permit it, the course should be compulsory for no credit.

#### **Required Courses in Pharmacy Administration**

**Pharmaceutical Law.** This course is essential in the professional training of the pharmacist and should be given for a minimum of 2 credits, preferably in the fifth year. It is the belief of the Committee that major emphasis in this course should be on laws and regulations governing the practice of pharmacy and the operation of drugstores. General legal principles, while recognized as important and of interest to every professional practitioner and to every person engaged in retail trade, should be subordinated to a presentation and discussion of the special legal problems faced in the practice of pharmacy and in the operation of a drugstore.

**Pharmaceutical Accounting.** This course should carry a minimum of 3 credits including laboratory and be given preferably in the fourth or fifth year. Both pharmacy and accounting are professions. Therefore, the presentation of pharmacy accounting should be in accord with professional principles. Students should be provided with enough knowledge and practice in accounting techniques to know and recognize the manner in which accounts records are prepared. Major emphasis in such a course should be, however, in the understanding and interpretation of accounting records needed in the operation of drugstores.

**Drug Marketing (Marketing of Drug Products).** This course should carry a minimum of 2 credits and might be given as early as the third year. In order for students to become thoroughly acquainted with the pharmacy administration courses that are provided for them and with the faculty members charged with the responsibility of presenting these courses the Committee suggests that, so far as possible, such courses

should be distributed through the last three years of the program instead of being concentrated all in any one year.

**Pharmacy Management (Drugstore Management).** This course should carry a minimum of 2 credits and should be given preferably in the fourth or fifth year.

In summary the following suggested curriculum of required courses and electives, with their sequences for the three professional years, is presented as the result of the deliberations of the Committee on Curriculum:

Third Year			
Pharm. Calcns.	1	Inorg. Pharm. Chem.	3
Gen. Pharm. 1	4	Biochemistry	5
Pharm. Orientation	0-2	Gen. Pharm. 2	4
Quant. Anal.	4	Elective	4
Microbiology	5		
Pharm. Marketing	2		16
	16		
Fourth Year			
Physical Pharm.	4	Drug Assay	4
Pharm. and Chem. of Med.	3	Pharm. and Chem. of Med.	3
Pharmacognosy	3	Pharmacognosy	3
Physiology	3	Physiology	3
Pharm. Accounting	3	Elective	3
	16		16
Fifth Year			
Dispensing	4	Dispensing	2
Pharmacology	4	Pharmacology	4
Pharm. Management	2	Manufacturing Pharm.	2
First Aid	0-2	Pharm. Ethics	1
Elective	6	Pharm. Law	2
	16	Public Health	2
		Elective	3
			16

The Committee is not unmindful of the suggestions of its predecessor committee of 1950 (3) and of the suggestions of Blauch and Webster (2) regarding the curriculum for the five year program. We realize that there are departures from those previous suggestions in the present report. We believe, however, that the curriculum suggested here for the three years of professional instruction is realistic and is consistent with the guiding principles which the Committee set down for itself at the beginning of its discussion. Of a total of 96 credits in the three years a minimum of 22 credits are given to pharmacy and professional orientation, 17 to pharmaceutical chemistry, 32 to pharmaceutical biological sciences, 9 to pharmacy administration, and 16 to electives. The electives are spread over all three of the professional years with a liberal portion of them in the fifth year which makes it possible for the student to specialize in some area by means of elective options.

The Committee recognizes that the curriculum suggested here falls short of the ideal that can be attained only in a curriculum of four years of professional training based on two years of pre-professional work. Compromises must be made in many areas of the curriculum in an attempt to come as close as possible to that ideal within the confining limits of a five year program. Among the most serious compromises in the curriculum suggested here are the lack of higher mathematics and physical chemistry, the lack of anatomy and histology, and inadequate credits suggested for such courses as biochemistry and the various courses in pharmacy administration.

On the other hand, we believe that an effective job of treating the material within the courses and credits suggested can be done by serious and sustained attention to more effective teaching. All schools will be confronted with the problem of presenting a body of knowledge and covering a field of study in many courses where there appears to be inadequate prerequisites or inadequate credits provided for the course. Shall we wring our hands and say that it can't be done or shall we accept it as a challenge to our ability and ingenuity as teachers and explore ways and means of doing it most effectively?

Some people contend that instruction in physiology and pharmacology that is adequate for the present and future needs of the pharmacist cannot be given without prerequisite courses in anatomy and histology. Can anyone effectively defend that position on the basis of actual trial and evaluation? Is it a valid contention that a course in physical pharmacy that is adequate for the present or future pharmacist cannot be given without prerequisite courses of calculus and physical chemistry? Does anyone know from actual measurement that an adequate foundation in pharmacy administration cannot be given in the 9 credits suggested here?

The annual sessions of the Sections of Teachers and the Teachers' Seminars will continue to be most helpful in attacking these problems and in seeking the answers to these questions. They suffer, however, from the lack of sustained effort, continuity and follow through to a definitive end-point on the problems. It appears to some interested observers that there is needed, in addition, a planned and sustained study of these problems, under the supervision of qualified experts in the field of education. Such a pilot-type study could be conducted in one or more schools of pharmacy in cooperation with its school of education and the results be made available in published form for the benefit and guidance of all member colleges.

The Committee realizes that this suggestion, if carried out, would involve the expenditure of funds. We believe that there are organizations with financial resources available for studies in education which might be approached. As one example the Committee on Utilization of College Teaching Resources of The Fund for the Advancement of Education announced last December the availability of \$500,000 for support of promising programs of institutional planning and experimentation in colleges and universities with respect to more effective utilization of teaching resources in providing undergraduate instruction of the highest quality (4).

The Committee realizes also that, since this suggested study is in the category of long-range planning, it should be given further consideration by the Executive Committee of the Association. Therefore:

**We recommend** that the Executive Committee give consideration to the feasibility of a planned pilot study of instruction in the professional courses of the five year program with respect to the most effective utilization of the courses and credits available in achieving the objectives of the program.

#### **Improvement in Supervision of Practical Experience Requirements**

Item 1c of the minutes of the meeting of the Executive Committee in Miami Beach on April 29, 1955 (5) mentioned a communication from the dean of a member college suggesting study by the AACP and NABP of the problem of improvement in supervision of practical experience requirements. It was the consensus of the Executive Committee that this should be referred to the Committee on Curriculum for study and recommendation to the Executive Committee.

The Committee on Curriculum had time for only brief discussion of this item at its meeting and proposes to make the item a subject for further study during the coming year. We do wish to suggest to the Executive Committee that a joint consideration of this problem by

the AACP Committee on Curriculum and the NABP Committee on Practical Experience Requirements or other suitable NABP committee might be feasible and fruitful.

## REFERENCES

- (1) Report of the Committee on Curriculum, *Am. J. Pharm. Ed.* 19, 522 (1955).
- (2) Blauch, L.E. and Webster, G.L., "The Pharmaceutical Curriculum," American Council on Education, Washington, D.C., 1952.
- (3) Report of the Committee on Curriculum, *Am. J. Pharm. Ed.* 14, 438 (1950).
- (4) Announcement of Program of Grants for Utilization of College Teaching Resources, The Fund for the Advancement of Education, Committee on Utilization of College Teaching Resources, 655 Madison Ave., New York 21, N.Y. (December 15, 1955).
- (5) Minutes of the Annual Meeting, Executive Committee, *Am. J. Pharm. Ed.*, 19, 565 (1955).

Lloyd M. Parks, Chairman

#### REPORT OF THE COMMITTEE ON EDUCATIONAL AND MEMBERSHIP STANDARDS

The Committee this year wishes it to be understood that this is a progress report based upon personal opinion and not of comprehensive study. Persons outside of the field of pharmacy have been consulted. No surveys or questionnaires, however, were used in the preparation of the report.

This Committee has addressed itself to three items and has considered them in the following order of importance:

1. the evaluation of transfer credit in organic chemistry;
2. deficiencies in mathematics; and
3. a pre-pharmacy curriculum.

According to the report of the Chairman of the Executive Committee, AACP, December 16, 1955, title—"Report on Enrollment in Schools and Colleges of Pharmacy First Semester, Term or Quarter 1955-56," out of the total of 5,506 new admissions in the member colleges in the continental U.S. there were 2263 new students admitted with previous college training. This latter group represents 40.1 percent of the new entrants and in all probability has caused some concern in the matter of evaluating transfer credit. While there may be several areas of credit in question, this Committee wishes to express its views regarding credit in organic chemistry.

#### Organic Chemistry

Entering students who have spent two or more years in a liberal arts or junior college, with an educational objective in the field of medical sciences, will probably have completed organic chemistry. After completing organic chemistry in either type of approved institution, the entrant would in most instances expect to receive credit for such courses when he entered the college of pharmacy and therein lies the problem of evaluation. It is to be noted that the evaluation of credit for courses in chemistry is one that raises problems in graduate schools in connection with the acceptance of students desiring to pursue graduate study in this area. In soliciting methods as to how some graduate and undergraduate schools go about determining the quality of preparation of prospective students as majors in organic chemistry, it was found that this question was one that had not been uniformly resolved. While the state and/or regional accreditation of the college and its accreditation by the American Chemical Society were important factors, there still seemed to be a question as to the comprehensive character of the course

as taught in many colleges. Standardized tests for determining proficiency in organic chemistry are available. Data concerning such tests may be obtained from the Division of Chemical Education, American Chemical Society, Examinations Committee, St. Louis University, 1402 South Grand Blvd., St. Louis 4, Mo. The statements which follow appear in the brochure, "National College Chemistry Testing Program 1956":

#### NORMS

Tables of percentile ranks, based on the results of previous programs, are supplied with all tests, except for the new tests noted below. Separate tables have been prepared for several kinds of typical courses, the type defined in terms of credit hours, length of course, type of institution, and professional goals of the students.

Consequently the test user can make immediate comparisons and need not return the answer sheets to the Committee for scoring.

It should be noted that direct comparisons with a given institution are not possible, since the performance of the individual institutions supplying the data for the norms is held confidential. Comparisons are made, rather, with groups of typical institutions, and such comparisons are, in any event, more meaningful. The same is true for comparisons between classes in the same institution, the information being available only to the instructor who supplied the answer sheets or data.

#### USES OF THE RESULTS

The results of these tests have been found especially valuable for making individual and group comparisons, both between students in the same college and with levels of achievement in different institutions.

The test results permit the instructor to evaluate the strengths and weaknesses of the individual and of the group. On the basis of this knowledge he can develop more effective methods of instruction for the group, and he can advise the individual student in his planning of a course of study which is appropriate to his abilities.

Supplementing the instructor's own observations and records, these test results furnish objective data helpful to the advisor in the guidance of students planning advanced study and careers in chemistry and related fields.

An increasing number of institutions are using these tests for the selection of graduate students, as a part of comprehensive examinations, and as a part of qualifying examinations. In all these cases the objective tests serve to essay quickly and reliably the vast background of undergraduate courses, but in most cases they are, and should be, supplemented by tests of other types.

Finally, many investigators use these tests for measurement of student performance in educational experiments.

#### ORGANIC CHEMISTRY TESTS

Form H, Form Y, 100 minutes.

This test measures achievement for part or all of a year's course in organic chemistry. It may be used either as an end-of-semester test or as one of the diagnostic tests given to beginning graduate students. The test is a well-balanced tool for measuring recall of information and ability to apply this information. It covers such areas as nomenclature, isomerism, proof of structure, stepwise synthesis, and identification prob-

lems.

Part I requires 50 minutes of working time and covers the average first-semester work, while Part II requires equal time and deals with second-semester work. Either part may be used alone, or both parts may be combined for a comprehensive examination. In Form Y for those teachers who believe that a final examination must include some completion or essay questions, Section C and F may be omitted without losing comprehensiveness of sampling. This, however, is not possible in Form H.

Form MB, two parts, 50 minutes each (new test).

This test examines the subject matter which should be understood by students having had a brief course in organic chemistry. It tests such fundamentals as nomenclature, functional group reactions, isomerism and natural products.

It consists of two parts each of which covers the whole course with equal validity. Each part contains 50 items and requires 50 minutes. If both parts are used a more thorough sampling is attained increasing its reliability. This division provides the teacher the opportunity to use part of the examination time for his own questions and yet compare the student with a national norm.

It is possible there may be some questions as to the application of the norms to particular groups of students. Chemistry majors, for example, might well be expected to score higher than students who have taken a course to satisfy a requirement for a particular sequence. Some institutions have dealt with this problem by reserving the right to cancel transfer credit when it is found that the student is deficient as evidenced by his inability to maintain satisfactory grades in succeeding courses of the sequence. It is understood, of course, that only grades of "C" or above are transferable.

Although some colleges depend upon the recommendation of the department concerned to initiate the cancellation, there are no doubt, other colleges that would prefer not to delegate this authority to a department outside of the pharmacy faculty.

In a college associated with a university it is probable that the chemistry department would welcome the opportunity of assisting the pharmacy faculty in evaluating transfer credit in organic chemistry. Whether or not our colleges would wish to relinquish the right to evaluate such credit is a matter of question. One institution using a test similar to the ACS examination for its graduate students indicated that the students who did not do well on the test requested permission to repeat the courses.

Inasmuch as there are tests that can be used for making individual and group comparisons, both between students in the same college and with levels of achievement in different institutions, your Committee believes that the member colleges of the AACP might well consider the use of such tests on an experimental basis. It would, perhaps, be well to administer the test to at least three or more classes in the present student population in each college, and from this group establish a rating scale to evaluate transfer students presenting credit in organic chemistry. Recognizing the differences in instruction between the colleges, it is probable that each school will establish its own minimum score in order to determine the competence of the transfer student.

The Committee is mindful of the problems that may arise in inter-university relationships when transfer credit is denied. On the other hand, the pharmacy faculty in a university system should have complete autonomy in determining its own entrance requirements and standards.

#### **Deficiencies in Mathematics**

The deficiencies in mathematics as reflected in pharmaceutical calculations both in the colleges and on state board examinations is fairly



general. This deficiency is acknowledged in most educational groups beginning with the elementary and secondary schools. The subject has been publicized by parent-teacher groups and by the lay press. Inasmuch as all colleges receive students with different intellectual abilities, it would seem then that the college may be morally obligated to provide simultaneously (1) an instructional program designed to raise the intellectual level of the sub-collegiate students and (2) an instructional program designed to provide unlimited opportunities for the intellectual growth of the superior students. In a summary statement during the 1955 Teachers' Seminar on Pharmacy, it was noted that "if some good predictor could be developed, it would be possible to avoid unnecessary failures by requiring remedial arithmetic or something of that nature." For the time being it would be well for our colleges to utilize the services of the established counseling and remedial services of the university agency. Remedial instruction has now become a specialized area; hence, such courses should be under the supervision of personnel with the proper facilities and know-how for the job. The need for remedial courses would probably be eliminated if all entering students were required to meet a minimum score on a standard test in mathematics.

#### **A Pre-Pharmacy Curriculum**

Under the heading of "Advanced Standing" in many of our college catalogues, there are statements relating to courses that may be acceptable for credit in the college of pharmacy. In addition, quite frequently there are suggestions relative to a pre-pharmacy curriculum. Should a substantial number of our member colleges use the 2-3 plan in implementing the five year program, there is reason to believe that there will be a need for a pre-pharmacy course based upon certain minimum uniform requirements, yet allowing reasonable flexibility. Such a program would probably facilitate student selection and minimize problems growing out of improper guidance or too many "pre-pharmacy" courses of varying content.

The Committee believes that this is a matter which should be referred to the Curriculum Committee of the AACP.

#### **Summary**

In summary, the task of the Committee of providing a judgment concerning the items referred to above has been limited; however, your attention has been directed to three general questions which should be resolved by the AACP.

The Committee wishes to suggest therefore, that—

1. The member colleges of the AACP utilize, on a trial basis, the ACS Cooperative Tests in Organic Chemistry to determine the practicability of using these tests as means of evaluating transfer credit in organic chemistry;
2. The employment of remedial courses in mathematics be encouraged for those students who are deficient in the mathematical background necessary for success in their work at the collegiate level and that such instruction be given by specially-trained personnel;
3. The problem of a pre-pharmacy curriculum be placed on the agenda of the curriculum committee for study and action.

Chauncey I. Cooper, Chairman

#### **REPORT OF THE JOINT COMMITTEE ON PHARMACY COLLEGE LIBRARIES**

The Committee on Libraries of the American Association of Colleges of Pharmacy, during its twenty-year history under the distinguished chairmanship of Professor C. O. Lee, made no fewer than fifteen major contributions to the Association's interest in the pharmacy college li-



brary. But with the formation of the Joint Committee on Pharmacy College Libraries in 1953, there occurred a departure from the traditional activities of the Library Committee. The membership was altered to include practicing librarians; through the instrument of the Committee, the Association maintains an associate membership in the Medical Library Association and in the Special Libraries Association, from which are drawn nominations for the librarian members of the Committee. At its interim meeting last November, the Executive Committee approved membership in Z-39, a subcommittee of the American Standards Association, and thus became the first educational association to participate actively in ASA. In the course of the correspondence, it became evident that the AACP is being looked upon more and more as an *avant-garde* in the recognition of the valuable role that the library and its staff officers play in the over-all functioning of professional education.

This year, with new appointments made by President Tice, the Committee consisted of Miss Clara Robeson of the Sheppard Library, Massachusetts College of Pharmacy, and Mrs. Elizabeth W. Johnson of the Philadelphia College of Pharmacy and Science library, affiliated through the Medical Library Association; Mrs. Irene Strieby, Library Consultant of Eli Lilly and Company, and Mrs. Mildred P. Clark, librarian for the Winthrop Laboratories, affiliated through the Special Libraries Association; Dr. James R. Weeks, Drake University, and Dr. Geo. E. Osborne, University of Utah, representing the Association. Miss Robeson, Mrs. Strieby, and Dr. Weeks were serving the second year of two-year terms; Mrs. Johnson, Mrs. Clark, and Dr. Osborne were serving the first year of similar terms.

The members of the Committee wish to express their appreciation for the continued support and interest of the Association in its activities. All members were present at a two-day meeting in New York City, January 19 to 21, 1956, where they were guests of the Winthrop Laboratories. This opportunity is taken to make a matter of record the gratitude of the Committee and of the Association for the delightful hospitality of the Winthrop Laboratories.

Realizing the need of a medium for the exchange of ideas and for the discussion of mutual problems to the edification of the services of the libraries to the colleges supporting them, the Committee continued at a high pitch its interest in holding a seminar for librarians, both of pharmacy colleges and of pharmaceutical houses. During the year, all three associations represented on the Committee approved the project in principle, and the Executive Committee of this Association, at its November (1955) meeting, decided to invite the librarians to participate in the general education seminar being planned for 1960. In the light of this action, a separate seminar for librarians alone in 1957, as originally conceived by the Committee, would have to be an independent enterprise. Rather than tax the American Foundation for Pharmaceutical Education with a request for financial support for such a project, the Committee concluded that private foundations, whose interests lie in the direction of pharmaceutical education and librarianship, might be approached.

The Committee was grateful and extremely well-pleased that the Executive Committee anticipates including the librarians in the 1960 Seminar on General Education and would avoid at all costs taking any steps that would create any attitude of alienation or ill feeling in the Executive Committee. However, the convening of a seminar especially for librarians in the summer of 1957 was considered to be most desirable on these grounds: (a) Other disciplines in the field of pharmaceutical education have each held at least one seminar limited to their particular areas; (b) A meeting devoted solely to a discussion of the problems of pharmacy librarians, to include both college librarians and commercial librarians, would have a wider appeal; (c) Such a meeting would allow

participants to air many more problems in a much more complete way; (d) The postponement of such a meeting until 1960 would prolong existent problems which might be solved through participation in such a seminar; (e) Having held a separate seminar, the librarians would be in a much better position to contribute ideas and to participate in the general seminar in 1960. Considering these opinions, the Joint Committee is requesting permission from the Association to inquire of private foundations after the solicitation of funds to support its venture in 1957.

Progress is also being made toward the establishment of an academic summer course in pharmacy librarianship. Again the point is made that this particular project is neither related to, nor in competition with, the proposed 1957 seminar, an event for established librarians. The academic summer course would be available as training subsequent to general library school education and would be intended primarily for those entering upon a career of pharmacy librarianship, either in a pharmacy college library or in a pharmaceutical house library.

This problem was presented before, and taken under study by, the Committee-affiliated library associations who questioned whether existent courses in medical librarianship might not suffice for pharmacy librarians. One of the Committee members has circulated a questionnaire among pharmacy librarians to determine what topics might be deemed essential in the training of the pharmacy librarian; an independent report by a committee in the Medical Library Association set forth the topics now offered by four good medical library courses. When put side by side, these two reports demonstrated that there is a wide gap between what is wanted and what is available. The Joint Committee member who circulated the questionnaire concluded that (a) no course for librarians now exists which approximates what is wanted; (b) no one school could organize and offer such a variety of topics (as were asked for); (c) further study of and agreement upon essentials is necessary. This same member was invited to New York City on March 16 to meet with the directors of a prominent library school on the very matter of special subject librarianship. These directors have expressed the interest of their school in offering a course in pharmacy librarianship to a minimum of fifteen students, perhaps to be taught by a prominent pharmaceutical librarian.

The Medical Library Association has had at work for some time a Committee on Standards and Criteria for Pharmacy School Libraries, and its activities have from time to time been reported to the Association through this Committee. One of the members of the Joint Committee served as chairman of the subcommittee on Qualifications for Pharmacy College Librarians, which made to the Committee on Standards and Criteria for Pharmacy School Libraries the following report:

The librarian should have administrative ability, adaptable personality, and be interested in people as well as the profession.

A graduate of an accredited college of pharmacy with an advanced degree in library science is best qualified; otherwise, the pharmacy college librarian should have a bachelor degree concentrated in the sciences, and in addition, an advanced degree in library science. Whenever possible, courses in special librarianship in the pharmacy subject areas should be acquired.

Reading knowledge of a foreign language is essential, particularly if graduate work is offered as a part of the pharmacy school curriculum.

The Joint Committee was unanimous in its approval of this report and recommends that the Association underwrite it with a favorable endorsement.

Out of the discussion of qualifications for librarians there arose the question of recruitment of highly qualified persons. The importance

of attracting to this field of specialization the highest caliber personnel cannot be overestimated. The qualifications suggested by the M.L.A. committee (above) are idealistic but certainly not beyond the realm of possibility. The expressed desire of several administrators to obtain for their libraries persons to participate in the operations of the college with full faculty status leads the Committee to hope that its efforts in the direction of enlisting ideal prospects, as well as attempting to provide for them the best available training in pharmaceutical librarianship and then supporting their continued efforts through the occasion of seminars will not be in vain.

It was pointed out that, in a recruitment program, publicity at professional meetings of the opportunities for pharmacy-library trained graduates might yield results. The Committee has undergone a campaign to alert authors and publishers in the field of guidance counseling to this outlet for special talent. The Committee likewise urges those teachers in colleges of pharmacy who discuss with their students, formally or informally, the diverse opportunities offered them by the profession of pharmacy not to forget this most interesting and remunerative possibility.

Those deans whose librarians or libraries qualify for personal or institutional membership in either or both the Medical Library Association or the Special Libraries Association will be pleased to know that the Committee has asked responsible officers in each of these associations to make separate mailings to deans and librarians, informing them of the scope of services and advantages of membership in these two groups. Each organization includes a Pharmacy Section, which carries on an active program for its participating membership.

The advent of the five year curriculum with its emphasis on the training of pharmacists as experts in drugs and dose forms, will bring with it the added responsibility of training students in effective and fruitful use of the sources of information on products already available; and further, there is the necessity to prepare them to add to, and to incorporate into, their academic learning the material on drug items yet to be marketed, which will flood their shops during the whole time of their professional practice. The study of this problem of stimulating use of the information sources led the Committee to consider the publication of a series of three articles, specifically:

- (1) **The Library Orientation of Students.** The extent to which students are instructed in the use of the library in separate courses or in special sessions of non-library courses is to be the subject of the first of the series. To find out the current practices, a questionnaire has been drafted which will be sent to each college under a cover letter to the dean, consisting of a sheet to be filled out by all faculty members who attempt to correlate course content with literature sources. The deans are asked only to direct the questionnaires to the proper members of their staffs. These forms are being submitted for approval and will be sent out as soon as they are cleared.
- (2) **The Pharmacy College Faculty and the Library.** This number in the series is intended to have a definite "faculty" slant and will include ideas to entice the faculty members themselves to make more use of the library, to encourage them to cooperate with each other in demanding more extensive and *continuing* student use of the library, and to suggest problems at both the undergraduate and graduate levels that would require use of the sources of the sort found in the library and also in extra-library literature.
- (3) **The Building of Students' Information Files.** It is anticipated that this article will deal with the setting up of a file of

information on new drugs, drug literature, etc., indexing it, keeping it up to date, by students with the hope that such a file will be carried into the shop and used there for more effective and immediate replies to physicians' inquiries.

This project is as yet in formative stages and, in order to present articles worthy of the attention of the Association members, it will be of a range longer than one or two years. It is anticipated that eventually *The American Journal of Pharmaceutical Education* will provide an outlet for this series of papers.

In the *Journal*, Summer issue, 1955, there appeared the results of a survey conducted by the MLA Committee on Standards and Criteria for Pharmacy School Libraries to determine what books and periodicals faculty members of colleges of pharmacy and pharmacy librarians felt essential to undergraduate and graduate work in the subject areas of the pharmacy curriculum. The MLA affiliates on the Joint Committee were largely responsible for the conduct of the survey; the Committee stood strong in its support of the project; and as a contribution of the Committee, offprints will be distributed when they become available. It was originally intended that each person who contributed to the survey would receive an offprint, but it became evident that such an ambitious program would involve the Committee and the Association in needless expense. Consequently, copies will be furnished automatically to deans and librarians and on request to other interested persons.

The Committee maintains its interest in and support of the work being done by the pharmacy groups of the Medical Library Association and the Special Libraries Association, mentioned in last year's report. In addition, the several secondary projects that last year took the attention of the Committee continued to merit its consideration: journal articles, instruction booklets, studies of national and international scope have been authorized and promoted. While reiterating its gratitude for past encouragement and support, the Committee has requested the Executive Committee to allot funds to continue its activities of which the projects reported here are exemplary.

George E. Osborne, Chairman

#### REPORT OF THE COMMITTEE ON RELATIONSHIPS OF BOARDS AND COLLEGES

All eight districts have held meetings since the annual meeting in Miami in April, 1955. Districts 7 and 8 met jointly. All meetings consisted of either 3 or 4 half-day sessions. In the entire eight districts, only two boards and five colleges were reported as absent, weather conditions preventing the attendance of three of the colleges. Districts 1, 4, 5, 6, 7, 8 each held one separate meeting for the boards, Districts 2 and 3 held all meetings jointly. A feature of the joint meeting of Districts 7 and 8 was a separate meeting of student representatives at which there were 41 in attendance.

President Tice represented the AACP at District 1; Chairman Zopf at Districts 2 and 3; President-elect Hewitt at Districts, 4, 7 and 8, and Secretary Deno at Districts 5 and 6.

As usual the topics of discussion at the various meetings were widely diversified, but a formal discussion of the five year curriculum was on the program of six of the districts. It was encouraging to note that the views of many educators, retailers, and other branches of pharmacy were clearly expressed on the curriculum content of the extended course. Legislation affecting pharmacy was discussed at the meetings of Districts 1, 2, 5, 7, and 8; internship training at Districts 1, 3, and 5; objective testing in board examinations at Districts 2, 3, 5, and 6; public relations for the pharmacist at Districts 2, 4, 6, 7, and 8.

Other subjects in the various programs included, "Modern Prescription Practice and the Dispensing Course," "The Licensing of Hospital Pharmacies," "Uniformity of State Board Applications," "The Objectives of a State Board Examination," "The Transfer of Students Among Colleges of Pharmacy," "The Selection of Pharmacy Students," "The Retail Pharmacy and Changing Patterns of Distribution," "Evaluation of Foreign Students and Schools of Pharmacy," and various phases of pharmaceutical and professional ethics.

The follow resolutions are presented to the AACP and/or the NABP for consideration at the annual meeting:

#### Resolutions Passed at District Meetings

##### District No. 1

I. *Resolved* that District No. 1 go on record as being strongly opposed to the unethical practice of the use of any form of discount, give-away prizes, trading stamps, or anything of a material or possible material value that might tend to influence a pharmacist to induce the public to bring their prescriptions to his particular pharmacy.

II. *Be it resolved*, that District 1 go on record as favoring the return of American Pharmaceutical Association Convention to August.

##### District No. 2

I. *Whereas*, the college of pharmacy diploma and the state board of pharmacy certificate are among the exclusive resources of the pharmacist and should be so identified in the public mind as a distinguishing feature of the difference between legitimate pharmacies or drugstores and non-drug outlets.

*Be it resolved*, by the Boards and Colleges of District No. 2, that the American Pharmaceutical Association be urged to consider the preparation of a suitable booklet for the purpose of explaining to the public, the legal, professional, and public health significance of the college diploma and the state board of pharmacy certificate, with special reference to the fact that these are to be found only in retail pharmacies and drug stores and should be regarded as a safeguard to public health and safety in the distribution of drugs and allied products.

II. *Whereas*, attempts have been made and are being made in several states to permit individuals without the proper collegiate training to be authorized to practice pharmacy, simply on the basis of having obtained certain practical experience in a pharmacy, therefore, be it

*Resolved*, that the Colleges and Boards of Pharmacy of District No. 2 vigorously oppose any proposal or legislation which would lower or by pass collegiate educational standards for registration as a pharmacist.

##### District No. 3—None.

##### District No. 4

*Resolved* that in the determination of qualifications and eligibility of every applicant for reciprocal licensure, one year of pharmaceutical practice in a pharmacy after licensure by examination in a state that grants reciprocal licensure shall be construed as the equivalent of a year of internship training prior to licensure.

##### District No. 5

I. *Be it resolved*, that the Fifth District Boards and Colleges of Pharmacy recommend that member colleges of the American Association of Colleges of Pharmacy require a letter of recommendation from the dean or administrative officer as a prerequisite to transfer from one pharmacy college to another, the letter of recommendation to be sent directly from one dean to the other.

II. *Whereas*, the House of Delegates of the American Medical Association in their Atlantic City meeting in June of 1955 amended Section 8 of Chapter I of its principles of medical ethics in such a way as to approve the participation of physicians in the supplying of drugs, remedies, or appliances, as long as there is no exploitation of the patient, therefore,

*Be it resolved*, that the Fifth District Boards and Colleges of Pharmacy request the American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy to convey to the American Medical Association our concern over this action as not being in the public interest.

#### District No. 6

I. *Whereas*, a great deal of confusion and divergent opinions exist in regard to the professional type of examinations, practical experience before licensing and uniform courses of study in various schools of pharmacy, therefore,

*Be it resolved*, that further consideration and study be given these subjects at future district and national meetings.

II. *Whereas*, the national leaders of the medical and pharmaceutical professions have recently made great strides toward improvements in interprofessional ethics, therefore,

*Be it resolved*, that we express our approval of such progress, and lend our encouragement toward even greater advances.

III. *Whereas*, great progress is being made in the public relations of the pharmaceutical profession, therefore,

*Be it resolved*, that even more effort be made individually and collectively toward popularizing the profession to the public.

#### Districts No. 7 and 8

I. *Whereas*, programs, philosophies, and legislation continually are appearing on our professional horizons, which if adopted, will lead almost surely to a lowering of both educational and professional standards, be it

*Resolved*, that Districts 7 and 8 go on record as opposing any program, philosophy, or legislation which might lead to the lowering of the standards of pharmaceutical practice and education.

II. *Whereas*, benefits to all segments of pharmacy can be anticipated by an elevation of the quality of students admitted to our schools and colleges, and

*Whereas*, a sizable ratio of students applying to students admitted to our schools and colleges is desired, be it

*Resolved*, that the American Foundation for Pharmaceutical Education and the American Association of Colleges of Pharmacy be commended for the recruitment program which they have subsidized and promoted, and be it further resolved, that Dr. W. Paul Briggs and the New York Life Insurance Company be commended for the preparation of the national distributed advertisement and the pamphlet, "Should Your Child Study Pharmacy."

The time and place of the meeting for the coming year of 1956-57 were scheduled as follows:

District	Place	Time
I	Boston, Mass.	Undecided
II	Atlantic City, N.J.	Oct. 25-27, 1956
III	Pensacola, Fla.	Aug. 20-21, 1956
IV	Chicago, Ill.	Early in 1957
V	Fargo, N.D.	Oct. 7, 8, 1956 (tentative)
VI	Little Rock, Ark.	Mar. 11, 12, 1957
VII	Missoula, Mont.	Oct. 25, 26, 1956
VIII	Las Vegas, Nev.	Oct. 4-6, 1956



## Officers, 1956-57

Dist.	College Chairman	Board Chairman	Secretary-Treasurer
I	Donald Skauen Connecticut	John Stephens Vermont	Maynard Quimby, Sec. Howard C. Newton, Treas.
II	Joseph Sprowls Temple	Ralph Ware, Jr. Virginia	Francis J. O'Brien Albany
III	Perry Foote Florida	Dewey Johnson Florida	Kenneth L. Waters Georgia
IV	Joseph Begando Illinois	Robert E. Giles Illinois	Edward J. Rowe Butler
V	C. E. Miller North Dakota	All Doerr and J. W. Moore North Dakota	C. Boyd Granberg Drake
VI	S. G. Mittlestaedt Arkansas	A. L. Waddle Arkansas	R. O. Bachman Arkansas
VII	Jack E. Orr Montana	John Tripeny Wyoming	L. Wait Rising Washington
VIII	Fred Drummond Colorado	Robert Quinn Nevada	Ewart A. Swinyard Utah

Francis J. O'Brien, Chairman

REPORT OF THE COMMITTEE ON RESOLUTIONS,  
RESOLUTIONS FROM THE EXECUTIVE COMMITTEE,  
AND RESOLUTION FROM THE FLOOR

I. From the report of the Committee on Relationships of Boards and Colleges.

1. *Whereas*, attempts have been made and are being made in several states to permit individuals without the proper collegiate training to be authorized to practice pharmacy, simply on the basis of having obtained certain practical experience in a pharmacy; and

*Whereas*, programs, philosophies and legislation are continually appearing on the professional horizons, which, if adopted, will surely lead to a lowering of educational and professional standards; therefore,

*Be it resolved*, that the Colleges and Boards of Pharmacy of the eight districts vigorously oppose any proposal, legislation or philosophy which lower or by-pass collegiate educational standards for registration as a pharmacist.

Approved by the Committee on Resolutions and on motion Hiner-Burlage, adopted by the Association.

2. *Be it resolved*, that the member colleges of the American Association of Colleges of Pharmacy require a letter of recommendation from the dean or administrative officer as a prerequisite to transfer from one college of pharmacy to another, the letter of recommendation to be sent directly from one dean to the other.

Presented without recommendation by the Committee on Resolutions for discussion on the floor; on motion Schaefer-Bliven, it was voted to postpone discussion; and subsequently on motion Schaefer-O'Day, it was voted to refer this resolution to the Executive Committee for further study.

3. *Be it resolved*, that the American Foundation for Pharmaceutical Education be commended for the recruitment program which it has subsidized and promoted; and

*Be it further resolved*, that the Secretary of this Association send letters of commendation to Dr. W. Paul Briggs for his assist-



ance, and to the New York Life Insurance Company, and to McKesson & Robbins Co., for the preparation and distribution of the recruitment pamphlets.

Upon recommendation of the Chairman of the Committee on Resolutions, deferred until a similar resolution from the Executive Committee was presented by its Chairman (see resolution 30).

II. From the report of the Committee on Audio-visual Education.

4. *Be it resolved*, that a plan for a central film depository which would utilize the services of a part-time technical director be adopted by the Association as soon as possible, as the beginning of an AACP sponsored film depository program; and

*Be it further resolved*, that the depository be maintained at a college of pharmacy, preferably in Chicago, Illinois, or close to that city.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Brodie, approved by the Association.

III. From the report of the Committee on Predictive and Achievement Tests.

5. *Be it resolved*, that the Association sponsor a program designed to develop as soon as possible a battery of predictive tests for pharmacy, to be available for the use of member colleges on a national basis; and

*Be it further resolved*, that the Executive Committee be directed to investigate possible sources of funds for support of this program.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Schaefer, approved by the Association.

6. *Be it resolved*, that the name of the Committee on Predictive and Achievement Tests be changed to the Committee on Predictive Tests.

Approved by the Committee on Resolutions and *on motion* Hiner-Rowe, adopted by the Association.

IV. From the report of the Committee on Public Relations in Pharmaceutical Education.

7. *Be it resolved*, that this Association strongly urge the Public Relations Committee of the American Pharmaceutical Association to offer cash prizes, in addition to the present awards, to the winning displays of student groups submitted for competition during National Pharmacy Week.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the proper committee of the A.Ph.A. *On motion* Hiner-Goodrich, approved by the Association.

V. From the address of the President-Elect.

8. *Be it resolved*, that the Committee on Recruitment Aids study ways and means of furthering guidance programs in high schools through direct contacts with vocational guidance teachers and directors.

Approved by the Committee on Resolutions and *on motion* Hiner-Bang, adopted by the Association.

VI. From the address of the President.

9. *Be it resolved*, that this Association send an official delegate, if possible, and if not, an unofficial one, to represent us at the annual convention of the National Association of Retail Druggists.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Leuallen, approved by the Association.

10. *Be it resolved*, that the Special Committee on Future Enrollment Problems be continued as a continuing or standing committee of this Association.

Approved by the Committee on Resolutions and *on motion* Hiner-Bauer, adopted by the Association.

11. *Be it resolved*, that some committee of the Association or some special committee be assigned the problem of studying what are the likely changes which will take place in the practice of pharmacy within the next one or two decades.

Approved by the Committee on Resolutions and *on motion* Hiner-O'Brien adopted by the Association.

12. *Be it resolved*, that this Association endorse the principle of a public relations program (as it is presently being formulated) and, through its officers, ask that we be given official representation on this national committee.

Approved by the Committee on Resolutions in its entirety and *on motion* Hiner-Foote, presented for vote. *On motion* Schaefer-Chambers, it was voted to amend the resolution by omission of the parenthetical phrase. The amended resolution which omits "as it is presently being formulated" was adopted by the Association.

13. *Be it resolved*, that this Association participate fully with the other national organizations in making plans for the Fourth Pan-American Congress of Pharmacy and Biochemistry, and further, that the incoming President, or the Executive Committee, appoint a special committee whose responsibility it shall be to represent the Association during the planning stage for this meeting.

Approved by the Committee on Resolutions and *on motion* Hiner-Harris, adopted by the Association.

VII. From the Section of Teachers of Graduate Instruction.

14. *Be it resolved*, that the Association establish a Committee on Hospital Pharmacy Education, with membership including full-time faculty members teaching in this area, hospital pharmacists with faculty appointments, and teachers at the graduate level in closely cognate professional areas; the duties of the Committee shall be to study and develop courses to be given on the undergraduate and graduate levels and to consider other problems concerned with education in hospital pharmacy.

Approved by the Committee on Resolutions and *on motion* Hiner-Murray, adopted by the Association.

VIII. From the Committee on Curriculum.

15. *Be it resolved*, that the Executive Committee give consideration to the feasibility of a planned pilot study of instruction in the professional courses of the five-year program with respect to the most effective utilization of the courses and credits available in achieving the objectives of the program.

Approved by the Committee on Resolutions and *on motion* Hiner-Reif, adopted by the Association.

IX. From the Council on Conference of Teachers.

16. *Be it resolved*, that the Council on Conference of Teachers urge the American Pharmaceutical Association to study the possibility of changing the date of the annual meeting of the American Pharmaceutical Association and affiliated organizations to a more suitable time other than during the academic year.

Approved by the Committee on Resolutions, with recommendation to refer it to the proper committee of the A.Ph.A. *On motion* Hiner-Bauer, approved by the Association.

X. From the Committee to Study Graduate Education in Pharmacy.

17. *Be it resolved*, that the Association approve a survey of the various aspects of current graduate programs to as complete an extent as possible consistent with funds which can be made available.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Rief, approved by the Association.

18. *Be it resolved*, that a publication be provided giving information on faculties, publications, and doctoral theses in pharmacy graduate programs in the United States.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Sprows, approved by the Association.

19. *Be it resolved*, that the Association re-emphasize the responsibility of each member college to make a concerted effort to inform qualified students in pharmacy of the opportunities for graduate study, and of the special advantages to be gained in pursuing work toward a graduate degree in an institution other than the one in which the undergraduate degree was obtained.

Approved by the Committee on Resolutions and *on motion* Hiner-Burlage, adopted by the Association.

20. *Be it resolved*, that the Association approves in principle the establishment of a "Graduate Study Advisory Committee" to function in the capacity of consultants in the area of graduate education on invitation by a member college, and requests the Executive Committee to establish the details of the committee operation and financing.

Approved in principle by the Committee on Resolutions, with recommendation to refer it to the Executive Committee for consideration, because of fiscal implications. *On motion* Hiner-Eiler, approved by the Association.

21. *Be it resolved*, that the Committee to study Graduate Education in Pharmacy be designated a continuing "Committee on Graduate Programs" and that the advantages of at least some carry-over in personnel be respectfully called to the attention of the incoming President annually prior to the time of committee appointment.

Approved by the Committee on Resolutions and *on motion* Hiner-Leuallen, adopted by the Association.

XI. From the Committee on Resolutions.

22. *Whereas*, Dr. R. A. Deno is relinquishing his position as Secretary-Treasurer of this Association after a period of three years, during which time he has faithfully and diligently served our Association at the expense of his personal time and energy far beyond our realization and expectation; now therefore,

*Be it resolved*, that this Association, through this resolution, make known to Dr. Deno our deepest gratitude and appreciation for his outstanding contributions to the progress and welfare of pharmaceutical education.

*On motion* Hiner-Hewitt, adopted by the Association.

23. *Whereas*, the efficient functioning of the Annual Meeting and our enjoyment thereof depend upon the well conceived and executed planning of many dedicated persons; and

*Whereas*, this has been a most fruitful and enjoyable meeting; therefore,

*Be it resolved*, that this Association express its thanks and appreciation to the local committee and to Dr. Robert P. Fischelis and his staff for their efforts on our behalf.

*On motion* Hiner-Goodrich, adopted by the Association.

*On motion* Rowe-Wiese, it was voted to approve the report of the Committee on Resolutions, as amended.

XII. From the Executive Committee, presented by Chairman Louis C. Zopf.

24. *Whereas*, The American Association of Colleges of Pharmacy several years ago established a fund known as The Fund For The Study of Pharmacy originally established for the purpose of examining the colleges; and

*Whereas*, this study was never undertaken as planned because of the activation of the American Council on Pharmaceutical Education and the Pharmaceutical Survey; and

*Whereas*, the Association has since and during that time contributed more than \$16,000 to the activities of the Council and is currently allotting \$1,000 annually for this purpose; therefore,

*Be it resolved*, that the moneys now carried as The Fund For The Study of Pharmacy be transferred to the General Fund of the Association.

*On motion* Zopf-Orr, adopted by the Association.

25. *Whereas*, economical and orderly transfer of records and funds of the American Association of Colleges of Pharmacy can best be accomplished as of the end of the current fiscal year, August 1, 1956, when commercial audit will occur; therefore,

*Be it resolved*, that the effective date of installation of the Secretary-Treasurer elected on Tuesday, April 10, 1956 be declared August 1, 1956, and that the incumbent Secretary-Treasurer, R. A. Deno, be authorized to continue to discharge the duties of this office until the effective date of installation of the incoming Secretary-Treasurer has been reached.

*On motion* Zopf-Wilson, adopted by the Association.

26. *Whereas*, the U.S. Department of Health, Education and Welfare has proposed a plan for increased federal aid in medical and dental research and construction grants for teaching and research facilities in medicine, dentistry, osteopathy and public health; and

*Whereas*, the extent of need upon which this proposal is based resulted from studies of need filed by the American Association of Medical Colleges, the Council on Dental Education of the American Dental Association, the American Association of Osteopathic Colleges, and Public Health Schools; and

*Whereas*, the proposal specifically lists the above-named teaching programs as those eligible for such grants and thereby excludes colleges of pharmacy, which also train public health personnel; therefore,

*Be it resolved*, that the American Association of Colleges of Pharmacy request of the Secretary of Health, Education, and Welfare the privilege of submitting the education and research facility needs of colleges of pharmacy in order that they may be included among those eligible for grants under the Department's Federal Health program.

*On motion* Zopf-Brecht, adopted by the Association.

27. *Whereas*, 1948 resolution 14 adopted by the Association approves student representatives being invited to District meetings; and

*Whereas*, advisability of this practice is a moot question; and

*Whereas*, the resolution is not essential for such invitation where a District so desires; therefore,

*Be it resolved*, that 1948 resolution 14 be rescinded.

*On motion* Zopf-Schaefer, adopted by the Association.

28. *Whereas*, 1949 resolution 3, adopted by the Association, directs the Secretary to transmit copies of memorial statements to families of deceased colleagues; and

*Whereas*, decease frequently precedes the time of Annual Meeting by many months, making such statements excessively late for such transmittal; therefore,

*Be it resolved*, that this proviso of 1949 resolution 3 be rescinded.  
*On motion* Zopf-Wiese, adopted by the Association.

29. *Whereas*, the American Pharmaceutical Association is endeavoring to raise funds to provide for expansion of its headquarters in order better to serve professional pharmacy; and

*Whereas*, the activities of the American Pharmaceutical Association are of vital importance in the program of the American Association of Colleges of Pharmacy; therefore,

*Be it resolved*, that the American Association of Colleges of Pharmacy endorse the current expansion project of the American Pharmaceutical Association as one unusually worthy of financial support on the part of personnel in member colleges.

*On motion* Zopf-Bowers, adopted by the Association.

30. *Be it resolved*, that the American Association of Colleges of Pharmacy extend to the American Foundation for Pharmaceutical Education its sincere thanks and appreciation for the advice, counsel and financial assistance given for the advancement of pharmaceutical education. The Association is grateful for the Foundation's continued support of many of its most vital activities, including the important recruitment aids projects.

*On motion* Zopf-Harris, adopted by the Association.

XIII. From the floor; ruled by the President to be considered without referral to the Committee on Resolutions, since the Association by its action so directed.

31. *Resolved*, that the American Association of Colleges of Pharmacy go on record as being indubitably and irrevocably opposed to the sale of alcoholic liquors in retail departments of pharmacies.

*On motion* Griffith-Hayman, adopted by the Association.

L. David Hiner, Chairman

(Submitted by R. A. Deno, Secretary, AACP)

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*Service is one of the chains by which society is bound together. Wherever there are human beings there are opportunities for service. . . . And in the midst of this voluntary service to the community, deep in every activity, looms the pharmacist.*

R. A. Kuever, *Am. J. Pharm. Ed.*, 5, 605 (1941)

## CONTINUING COMMITTEE REPORTS

### REPORT OF THE COMMITTEE ON AUDIO-VISUAL EDUCATION

The major activities of the Committee during the year have been as follows: 1. The solicitation and review of films for the Audio-visual Education Award in pharmacology; 2. the review of films, film strips, and other similar audio-visual aids of teaching value in many pharmaceutical areas; 3. a study of conditions by which the Association might establish or sponsor a central film depository; and 4. representation at the annual meeting of the Audio-visual Conference of Medical and Allied Sciences.

#### 1. The Award in Audio-visual Education

Since the judges of the 1954-55 Audio-visual Education Award had recommended that no award be made for any of the entries which were received for the area of pharmacology (the area of choice for the year), the Committee was instructed to continue the award in this area for one more year. Consequently, numerous announcements were sent throughout the year to teachers of pharmacology, zoology, and physiology to publicize the award in pharmacology. Responses have not been great and, indeed, the interest shown by teachers of pharmacology in this contest has been, on the whole, disappointing. Nevertheless some entries have been received and the results of the 1955-56 contest will be found in the news section of this issue of the *Journal*.

The Committee feels that some clarification should be made in the rules of the award contest (see *The American Journal of Pharmaceutical Education* 16: 582-586, 1952) on the point of whether or not an award must be made in any area if two or more entries are received and none is considered by the judges to be worthy of the award. Under paragraph 5 of the original recommendations for conducting the award (reference noted above), which rules were accepted by the Executive Committee of the Association, the statement is made, "... at least two films must be submitted, otherwise no award will be made; ..." However, since there is no clear statement in the rules here or elsewhere to the effect that an award need not be made should the Committee find no entries of sufficient merit, the Committee recommends that following the above phrase under paragraph 5 of the rules, the following phrase be added: "if, in the majority opinion of those judging the contest, there are no entries sufficiently meritorious for an award, no award will be made and the action of the judges will be final; ..." The remainder of paragraph would remain as now written.

The Executive Committee of the Association in 1955 approved the continuation of the award contest in other areas of pharmacy for two more years beyond the 1955-56 year. In accordance with the Committee recommendation of a year ago, that the award for 1956-57 be in pharmaceutical chemistry and in 1957-58 for the area pharmacognosy, this year's Committee recommends that this schedule be followed and that the Association communicate the plan to teachers of pharmaceutical chemistry and pharmacognosy at the earliest possible date. The Committee believes that the contest as originally devised has merit and that it does serve a useful purpose in stimulating creative work in audio-visual preparation.

#### 2. Film Reviews and Abstracts

Seven film reviews and one book review on films were published during the year in *The American Journal of Pharmaceutical Education*. In addition to these reviews twenty-one abstracts of films were published in the same *Journal* as part of the 1954-55 Committee report. (See *Am. J. Pharm. Ed.* 19: 788-794, 1955.) Reprints of these reviews and abstracts were sent to each member college during the year.

The films that have been reviewed by this year's Committee are listed in the addendum to this report. It will be noted that the majority of films for which abstracts were prepared in 1955-56 are in the area of pharmaceutical administration. Since this is a newer area of specialization in the curriculum, teachers may find many useful titles and abstracts of value in the list for supplementing the teaching program in this area. The complete list will be published in our *Journal* during 1956-57 in accordance with the established procedure and reprints of the list will be made available to all member colleges. The Committee recommends that this activity be continued and that the cost for a sufficient number of reprints for wide circulation be taken from its annual budget allocation.

### 3. A Central Film Depository

There have been many recommendations made by previous committees of the Association that a central film depository would be of benefit to the member colleges (see the 1954-55 report of this Committee, *Am. J. Pharm. Ed.* 19: 788-794, 1955). On the basis of the 1955 Committee recommendations that a study be made to determine how a central film depository could be set up within the framework and budget of the AACP, considerable effort was made during the year to obtain a workable plan for an Association sponsored film depository. This study was conducted with the following objectives in mind: 1. To re-assess the interest among the colleges for audio-visual aids; 2. to determine what assurance could be given that colleges would use an Association sponsored depository; 3. to determine where and how the Association might set up the depository; and 4. to ascertain what the budget for such an operation might entail. The Committee solicited the counsel of Mr. Ralph Creer, Director of the American Medical Association Film Depository, Chicago, Illinois, and several other experienced administrators in audio-visual programs of this type, for advice during the study.

The first two of these objectives were studied by means of a carefully worded questionnaire sent to all of the colleges. This questionnaire was similar to one employed in 1950-51 (see *Am. J. Pharm. Ed.* 16: 582-583, 1952) but somewhat more complete. Respondents from approximately 75 percent of the 76 colleges surveyed showed a genuine interest in the need for audio-visual aids. Approximately 44 percent of the colleges are already actively engaged in the use of audio-visual materials and about 50 percent are now using some films and would use more if encouraged to do so. About 98 percent of the colleges wish to receive film reviews.

Most of the colleges use films which are borrowed from pharmaceutical companies or from audio-visual departments of their universities. There is only a very limited amount of visual material presently available from either the colleges or from individuals that might be available to a central film depository. A significant number of the respondents emphasized the need of a central agency for the proper evaluation and rating of films. Many other worthwhile suggestions were received and most of these substantiated the fact that the colleges seek a central agency for advice on audio-visual materials.

On the basis of this and previous surveys on the question, the Committee believes that a central film depository would be used to good advantage by the colleges if it were set up with the following principal objectives in mind:

1. To organize, coordinate, centralize, and distribute a complete list of all available films pertaining to pharmaceutical education. Such a list should include good descriptions of material, their sources, and an unbiased review of each.
2. To periodically supply new and current listings of materials to member colleges and pharmacy groups, or to other persons who seek this information.
3. To evaluate and rate films of both a fundamental and applied nature.
4. To make available to the colleges and pharmacy groups as many films as possible within the budget of the depository. The purchase of films by the



depository, although desirable, should not be its major objective. The permanent collection of films for the depository would be on a gradual procurement basis.

Several plans for setting up a central film depository were studied. It is obvious that the Association cannot at this time underwrite a program comparable in magnitude with those of the Medical and Dental Associations. However, the Committee recommends that the second of the three alternative plans suggested in its 1955 Report be followed in principle as a beginning program. By this plan the film depository would be established on a university or college campus of central location and would be directed by a qualified staff member of the faculty on a part-time basis. The director should possess technical and secretarial abilities and preferably have had some experience with audio-visual materials. The technical director would have the responsibility for booking, shipping, receiving, and inspecting of films owned by the Association or loaned to it. He would procure films, contact producers, coordinate reviews, submit reviews or abstracts of films, and publicize listings. The technical director would also serve as a liaison between the AACP and the American Medical Association, and other health professions having similar audio-visual programs. It is estimated that this person, in hours after regular faculty employment, could average two hours a day, forty hours per month at \$2.50 per hour, or \$100 per month. It is recommended that someone within the ranks of pharmacy direct the program and that he be responsible to the AACP Executive Committee through the Committee on Audio-visual Education. He should be an *ex-officio* member of the latter committee.

Physical facilities for housing the depository would be furnished by a member college of pharmacy but the expense for operating it, apart from the physical facilities of space and utilities, would be borne by the Association. The Committee has already received communications from the Universities of Arkansas, Illinois, and Wisconsin, each expressing an interest to participate by furnishing space and utilities in the above manner.

**A. Budget:** According to this plan, the Committee, in consultation with Mr. Ralph Creer, Director of the Motion Pictures and Medical Television Program of the AMA and committee member, Ralph Voigt, who has been in close contact with the Chicago office, proposes the following as a minimum budget for commencing the operation of an AACP Central Film Depository. It should be noted that as the program becomes known and as demands for the service increase, the plan will need to expand during subsequent years.

**First year**

<b>Personnel:</b>	1 technician with secretarial ability (part-time at \$100.00/mo.)	\$1200.00	\$1200.00
<b>*Equipment:</b>	Projector (with magnetic sound)	600.00	
	Screen	40.00	
	Rewinds	50.00	
	Viewer	30.00	
	Splicer	35.00	
	Measuring machine	80.00	
	Shipping cases	25.00	
	Reels	5.00	
		865.00	865.00
<b>Supplies:</b>	New films (exclusive of donations and loans)	400.00	
	Leaders and titles	5.00	

Shipping labels and tags (several years supply)	25.00	
Stationery	10.00	
Repairs of film	25.00	
Contingency fund	70.00	
	<hr/>	
	535.00	535.00

Grand Total \$2600.00

\*The initial expenditure of \$865.00 for equipment would be amortized over a period of approximately ten years.

It is also advisable to set funds aside for the purchase of new films or for the production of duplicates. The contingency fund might be used in part to supplement the budget for this purpose.

Lastly, the need for items of an incidental nature will depend upon the amount of service involved.

The cost of operations as outlined above would become the responsibility of the American Association of Colleges of Pharmacy.

The center of all mechanical operations; shipping, billing, and physical maintenance of the library should be located in a college of pharmacy in which the technical director of this project is a staff member. It is assumed that these facilities on the part of the college would be available without charge.

#### **Second year**

The following budget for the second year should be considered as an estimate based on the anticipation of increased activity and additional demands upon the film depository:

1 technician (at \$125.00/mo.)	\$1500.00
New films (exclusive of donations and loans)	600.00
Incidentals for routine services	50.00
Repairs of films	50.00
Contingency fund	100.00
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	\$2300.00

#### **Ensuing years**

It would be impractical to project at this time, expenses for the third, fourth, and ensuing years. The two most important items in each year's budget should be funds for additional help and funds for the procurement of more film material. These considerations will depend upon the demand for film services and upon the growth of the film library.

#### **B. Policies and/or Regulations**

It is recommended that the following policies and/or regulations be put into effect in order to facilitate the operation of the film depository:

1. Type of films to be made available:
  - 16 mm.
  - Black and white, unless color is indicated.
  - Sound and silent.
2. Availability:
 

Films are available on loan (service charge basis) in the following order of priority to pharmacy schools, pharmaceutical societies, auxiliaries, organizations affiliated with the health sciences, and other scientific groups.
3. Instructions for ordering:
  1. Requests should be made as far in advance of desired showing date as possible.
  2. Requests should be signed by the person responsible for the use and prompt return of the film.

3. If service charge is to be paid by an institution, a formal purchase order should accompany the request.
4. Requests should be addressed to: (to be added later)
4. Service charges:

A service charge is made for nearly all films. The charges listed are to be for a two-day period and include transportation to the user. Payment should not accompany film order. An invoice in duplicate will be mailed shortly after the film or films have been shipped.

Comment—A reasonable service charge will be listed for each film ranging from \$1.00 to \$3.00, and occasionally \$4.00 or \$5.00, depending upon the value of the film. Such charges will help to pay for film replacement. Experience on the part of other film libraries indicates that a service charge does not stop the ordering of films; the user will show the picture and the film will be returned on time.

5. Transportation charges:

The user pays transportation charges one way. Films must be returned prepaid, insured for the amount specified on the confirmation.

6. Return of films:

In all cases the films should be returned by parcel post (under special postal regulations for films) immediately after showing. Films must never be retained beyond date reserved, without first obtaining specific authorization well in advance. Overtime surcharge (full daily rate) accrues on films not returned on time. To maintain booking schedules, it may be necessary to telephone or telegraph the exhibitor because of his delay in returning films as agreed. Exhibitor will accept these charges collect.

7. Cancellations:

Cancellations of film bookings should reach the director of the film depository at least one week in advance of scheduled showing date; otherwise a charge will be made for the booking.

8. Film damage:

Responsibility for any damage to a film beyond ordinary wear must be borne by the individual or organization borrowing the film.

9. Payment of service charges:

In order that each account may be properly credited, the duplicate invoice is to be returned with the remittance. The check or money order (stamps not accepted) should be made payable to: American Association of Colleges of Pharmacy, Film Depository, \_\_\_\_\_

The Committee *recommends* the adoption of this plan for commencing a central film depository and that steps be taken as soon as possible for its implementation. Further, the Committee *recommends* that, if adopted, the depository be maintained in Chicago, Illinois, or close to that city, so that close liaison can be maintained with other health profession film depositories and so that film distribution to member colleges can proceed more efficiently from this central location.

#### 4. Third Annual Meeting of the Audio-visual Conference of Medical and Allied Sciences

The Committee and the AACP were represented at the Audio-visual Conference of Medical and Allied Sciences by Drs. Ralph Voigt and George Webster, University of Illinois College of Pharmacy. This meeting was the third annual meeting of the Conference and was held in Chicago, Illinois, on July 26, 1955, as a joint conference with the National Audio-visual As-

sociation's Trade Show. Part of the program was devoted to an exchange of information on significant activities of the participants during the year. National film handling problems, the status of TV programs in the health professions, and international film exchange were also discussed. Drs. Voigt and Webster, of the AACP, reported to the Conference on the AACP Audio-visual Education Award program and on the series of films to be produced by the Association and the AFPE in the quality recruitment program.

#### Summary of Recommendations

It is recommended by this Committee that:

1. The following phrase should be added to paragraph 5 of the rules for the audio-visual award contest: "*if in the majority opinion of those judging the contest, there are no entries sufficiently meritorious for an award, no award will be made and the action of the judges will be final.*"

2. The present schedule for an audio-visual award contest in pharmaceutical chemistry in 1956-57 and for pharmacognosy in 1957-58 should be widely publicized to the member colleges.

3. The publication of the film reviews and abstracts in our *Journal* should be continued and the cost of reprints for circulation should be expended from the annual budget of the Committee on Audio-visual Education.

4. The plan for a central film depository which would utilize the services of a part-time technical director, as herein described, should be adopted by the Association as soon as possible as the beginning of an AACP sponsored film depository program.

5. The central film depository, when adopted, should be maintained on a university college of pharmacy campus, preferably in Chicago, Illinois, or close to that city.

Heber W. Youngken, Jr., Chairman

#### Film Abstracts and Reviews

*(An Addendum to the Report of the AACP  
Committee on Audio-visual Education 1955-56)*

The following are abstracts or reviews of films and film strips assembled by the Committee on Audio-visual Education for 1955-56.

1. **Intravenous Anesthesia with Barbiturates:** Abbott Laboratories, North Chicago, Ill., 16 mm., color sound film, 30 min., free rental.

This film was produced jointly by the American College of Surgeons and American Society of Anesthesiologists. It is obviously intended for medical groups, including medical students. However, besides showing the techniques of the intravenous administration of barbiturates (thiobarbiturates) it provides enough basic information about indications and contraindications of barbiturate use for anesthesia to make it of some value for portions of the pharmacology course for pharmacy students which deals with this subject. One would hardly label the film as overly specialized for pharmacy students.—H.W.Y., Jr.

2. **Cell Division and Growth:** Abbott Laboratories, North Chicago, Ill., 16 mm., black and white sound, 13 min., free rental.

Living tumor cells and phage cells are shown by phase and time lapse microphotography. The amoeboid movement of cells and cellular reproduction as shown by phase microscopy is very impressive and will stimulate students in beginning courses of the biological science areas as well as those in the upper divisions.—H.W.Y., Jr.

3. **Making the Most of a Miracle:** National Plant Food Institute, 1700 K St., N.W., Washington, D.C., 16 mm., color sound film, 27 min., free rental.

This film is most dramatic and has excellent color. It deals with plant nutrition from an agricultural point of view and thus shows the importance of soil minerals (i.e. iron, potassium, phosphorus, calcium, magnesium, molybdenum, etc.) for plant growth and metabolism.

The role of these elements in plant growth is nicely shown by animation and time-lapse photography.

The film is suitable for beginning students in botany or biology but would be of little scientific teaching value for advanced students except, perhaps, for its color and dramatic appeal.—H.W.Y., Jr.

4. **Do You Fill Prescriptions Here?:** National Wholesale Druggists' Assoc., 60 East 42nd St., New York 17, N.Y., color sound slide film with 16-inch record playing at rate of  $33\frac{1}{4}$  r.p.m., 26 min.

Designed to help the average pharmacist to increase his prescription business by at least four prescriptions a day. The film shows, by actual case examples, the steps taken by successful pharmacists from all over the country to build their prescription volume. It covers window displays, store interiors, detailing, customer promotion, storage, wrapping, labeling, and professional services.

Should be seen by all pharmacy students as an important phase of their professional and business training in pharmacy administration.—E.J.W.H.

5. **Narcotics:** Narcotic Educational Foundation of America, 1645 North LaBrea Ave., Los Angeles, Cal., 16 mm., color or black and white sound film, 21 min., free rental.

This film describes what narcotics are, how to identify them, the methods of administration, the addict and his effect on society. It has much value in impressing upon students their moral, ethical, and legal responsibilities to society in the handling and control of all narcotic preparations. A better response is found by coordinating classroom work with the showing of the film by the Student Branch of the A.Ph.A. State and federal agents connected with narcotic law enforcement could be invited to appear with the film to elaborate on the local and national situation.—E.J.W.H.

6. **Supply and Demand:** McGraw-Hill Book Co., New York, N.Y., 34 frames, 35 mm., film strip, free rental.

Describes in detail the construction and meaning of demand and supply curves; how elasticity of demand is measured; how equilibrium price is determined in a competitive market. Exemplifies these graphic tools by an analysis of the effect of sales tax on competitive price determination. The film is an excellent review for seniors in sales promotion to renew fundamentals involved in analyzing the nature of modern day competition. It permits review of basic points upon which the instructor can elaborate with respect to all levels of pharmacy.—E.J.W.H.

7. **Customers Are People:** Eastman Kodak Co., Rochester, N.Y., 16 mm., black and white sound film, 15 min.

Stresses the points in selling merchandise to meet the demands for customer satisfaction, and also the fact that customers are people and not robots. The film is valuable as an adjunct in discussing customer buying motives and habits so that layout and selling policies will be adapted to fulfilling the customers' wants and needs rather than merely to sell merchandise for the sake of selling.—E.J.W.H.

8. **This Can Happen To You:** Eastman Kodak Co., Rochester, N.Y., 16 mm., color sound film, 17 min.

Describes the photograph department as a three-call line to promote general sales as well as photograph sales. Also describes selling techniques and something on buying motives. The film value lies in its discussion of promoting the photograph department from the standpoint of customer satisfaction derived, high rate of profit from photograph sales, and high incidence of related and non-related impulse selling opportunities.—E.J.W.H.

9. **Profit and Cost Equilibrium:** McGraw-Hill Book Co., New York, N.Y., 35 mm., black and white sound film strip, 40 min.

Contrasts competition, monopoly, and monopolistic competition; defines the relationship between price, quantity, total revenue, and marginal revenue; gives breakdown of costs into fixed, variable, average and marginal; defines point of maximum profit; and describes the marginal productivity theory and the problem of distribution as it would appear to a firm trying to minimize costs.

Valuable as a review of economic principles and as an application of these major principles and theories to pharmacy and to drugstore operation.—E.J.W.H.

10. **Profits on the Hoof:** National Wholesale Druggists' Assoc., 60 East 42nd St., New York, N.Y., color sound slide film with 16-inch record playing at rate of  $33\frac{1}{3}$  r.p.m., 16 min.

A film designed to show pharmacists how to set up an animal health department and build volume of animal health business. It shows by actual case examples, successful promotions by pharmacists all over the country of veterinary products. It covers promotions to farmers, relations with veterinarians, county agents, teachers, etc.

An important message to pharmacy students to acquaint them with the potential market for animal health products and the opportunities for success in promotion of an animal health department.—E.J.W.H.

11. **And Now Tomorrow:** Libby-Owens Glass Co., Toledo, Ohio, 16 mm., color sound film, 20 min.

Shows the importance of modernizing the drugstore providing new and needed services, departmentalizing, reading trade publications, using proved ideas, and listening to the advice of sales representatives. A good quality film, well produced with good actors.—E.J.W.H.

12. **Big Little Things:** Coopers, Inc., Kenosha, Wis., 16 mm., color sound film, 30 min.

This film goes beyond simple product salesmanship, for it covers human relations on a more personal side of selling. It is especially of interest to pharmacy owners, managers, and retail salespeople.—E.J.W.H.

13. **Spotlight on the Middle Millions:** New York Daily News, 220 East 42nd St., New York, N.Y., 16 mm., color sound film, 10 min., free rental.

A marketing analysis of New York City and the buying habits of the people living in the metropolitan area.—E.J.W.H.

#### REPORT OF THE COMMITTEE ON CIVIL DEFENSE EDUCATION

Current events continue to indicate the need for civil defense. Health care in the event of a national catastrophe will require the best planning by all the members of the Health Team at the national, state, and local levels. The problems are similar to those adequately expressed in previous reports except that with the development of more powerful weapons and means of destruction, the magnitude of the disaster will be potentially greater with likewise greater problems.

The Committee in its report last year made these recommendations that are as valid then as now; i.e., first, all pharmacists and all schools of pharmacy should give serious thought to the manner in which they may best serve the nation in the event of a disaster; second, pharmacists should take the lead in developing a workable program for the procurement, storage and distribution of medical supplies; and third, pharmacists should intensify their efforts to encourage appropriate education and training for disaster operations.

The Red Cross will shortly have available a revised course for civil defense that will embrace ten to twelve hours. It is quite possible that it may be advantageous to incorporate at least a part of this training in the



public health or first aid programs offered in most schools of pharmacy.

It is encouraging to hear that the Federal Government has allocated \$11,000-\$12,000 for civil defense education in twenty-five medical schools. It is anticipated that this allocation will be extended in the future to include other health groups, including schools of dentistry, nursing, veterinary medicine, and pharmacy, although no definite plans have been formulated for schools of pharmacy as yet.

The Chemical Warfare Service has developed for self medication, gas masks, detection kits, and atropine kits. The gas masks are now being produced in large numbers, and it is planned to arrange for their distribution through retail pharmacies. These will not be produced at the expense of the Federal Government, and hence there will be a charge for them in the normal manner.

Your Committee again urges the members of this association to cooperate and display leadership in civil defense programs at the local level.

Noel E. Foss, Chairman

#### REPORT OF THE COMMITTEE ON PREDICTIVE AND ACHIEVEMENT TESTS

The Committee on Predictive and Achievement Tests was requested by President Tice to investigate the desirability and feasibility of developing a national predictive testing program which might be employed as one of the criteria in the selection of students of pharmacy. This report will disclose that the members of the Committee not only regard the plan as feasible but as one of the most necessary and desirable projects which the Association may be called upon to consider. Present methods used in the selection of students of pharmacy do not appear to be highly successful, as was indicated by the 1954 report of this Committee, and the adoption of a pre-pharmacy program will accentuate the need for better criteria to be used in the selection of students for the professional educational program.

The Committee presents the following reasons for considering development of a national admissions testing program as a problem which demands immediate attention:

1. Colleges of pharmacy are faced in the immediate future with a possible dramatic increase in the number of potential students which will result from the large number of young people now approaching college age. Statistics for this year indicate that the upward trend in enrollments has already begun to affect registrations in colleges of pharmacy. Every college and university in this country is giving consideration to the problems which will arise as a result of the anticipated increase in registrations.

All authorities are agreed that we cannot, in the face of this increase, afford to be wasteful of manpower and of teaching facilities. For colleges of pharmacy this would seem to indicate that we can no longer afford to select students on the basis of general college aptitude tests (which have been found to be poor criteria for success in pharmacy studies); rather, we must develop criteria which will make it possible to select students on the basis of ability to succeed in the study and in the practice of pharmacy.

2. In the new educational programs which are now being developed by the colleges of pharmacy there is a strong probability that the pre-pharmacy credits may be gained in a variety of institutions. (Indeed, it will be unfortunate if this is not so, since it has been observed (1) that the drawing-together of students with a diversity of backgrounds contributes to the educational climate of an institution.) The admissions procedures and grading standards used by these institutions will not always be uniform; therefore, it will be important that we have available reliable criteria which may be used to supplement the academic records. The experience of other groups has indicated that pre-professional academic records do not provide a sufficient screening method for the selection of professional students—as wit-



nessed by the necessity for admissions testing programs in medicine, dentistry, law, etc.

3. Because of the cost of professional education it is particularly important that we avoid wastefulness in the use of our facilities. Since it is impossible to replace students who fail or withdraw during the professional portion of the curriculum, it is essential that we admit only those who have the maximum probability of completing the course. It is our obligation to investigate every possible means for the estimation of this probability.

The Committee wishes to emphasize at this point that the predictive testing program, which is visualized, should not be confused with past efforts by this Committee which have been designed primarily to measure general academic ability, as opposed to special aptitude for the study of pharmacy.

A project designed to prepare suitable predictive tests for pharmacy would seem to be most urgent at this time, because the need for such criteria as may be developed will probably be most acute during the transition period which lies just ahead, and because this is the ideal time for the institution of a program which will undoubtedly be permanently adopted if it accomplishes those purposes for which it is intended.

The Committee is cognizant of the fact that the introduction of a national admissions testing program may require some additional effort and expense on the part of pharmacy school applicants; however, it is the opinion of the Committee that this will be more than offset by the advantages which will accrue to the applicant and to the college. For those applicants who are screened out on the basis of reliable criteria, the rejection represents a saving of time and money which would otherwise be spent in determining lack of ability through the unsatisfactory procedure of academic failures. It also represents a social advantage, since there is less embarrassment to the student in rejection of an application than in academic failure. Those students who are accepted will undoubtedly hold much greater respect for the academic program when they are exposed to a careful testing and realize the care with which they have been selected.

The Committee wishes to emphasize the following features of the testing program which is visualized.

1. The predictive tests will serve as only one of the guides to be used in the admissions program of a school and will be supplemented by any additional criteria preferred by the individual school.

2. The program will not be mandatory, but will be offered to all member colleges with the hope that enough will lend support to make it effective.

3. The tests will not be designed to replace existent general college admissions programs, but will be designed to supplement them. These examinations will be designed to be given during the pre-pharmacy period for the purpose of measuring probable success in pharmacy.

The Committee has given consideration to procedures by which a satisfactory admissions testing program might be developed. The conclusion was reached that this is a task for experts and should not be attempted by pharmacy personnel who are not adept in the field of psychological testing. It was also concluded that it would not be economically sound to duplicate physical facilities and personnel which are existent and available. The experience of other professional groups affirms this conclusion. For the foregoing reasons it was decided that the best procedure would be to cooperate with some existent testing agency in the development and validation of suitable tests. Several testing agencies have been contacted in order to determine the facilities which are available and the probable cost which would be involved in carrying through a program with their assistance. Through such contacts it was estimated that a budget of approximately \$35,000 would be required to develop and evaluate a suitable battery of tests.

One minor point which has received consideration is that of an appropriate name for the Committee. The present name indicates that the Committee is

to be concerned with both predictive and achievement tests. While these can never be completely divorced, it is understood by members of the Committee that predictive tests are designed to determine the probable success of an applicant who is planning to begin studies. Achievement tests, on the other hand, are designed to determine progress which has been made at any stage of the educational program. Except for its use in determining the value of predictive tests, the latter area of study has been assigned by President Tice to the Committee on Educational and Membership Standards. We, therefore, believe that the name of this Committee should be changed to that of the Committee on Predictive Tests and that its work be confined to the area of activity which is indicated by such a title.

The following specific recommendations are presented by the Committee for consideration:

1. That the name of the Committee be changed to the Committee on Predictive Tests.

2. That the Association sponsor a program designed to develop a battery of predictive tests for pharmacy to be available for the use of member colleges on a national basis not later than September, 1959.

3. That the Executive Committee be directed to investigate possible sources of funds for the support of a program as outlined above.

A great deal of information which is too voluminous to be included in this report has been collected and the Committee stands ready to supply this information and to render whatever assistance it can toward the development of the proposed objective.

#### REFERENCES

1. Carman, Harry J., *Ann. Acad. Pol. Soc. Sci.*, 301, 46 (1955).

Joseph B. Sprowls, Chairman

#### REPORT OF THE COMMITTEE ON PROBLEMS AND PLANS

Running true to form, this Committee has kept its attention concentrated upon what it was originally committed to do—namely, to keep before the Association those problems which its members consider the most important for the welfare of the Association and the promotion of pharmaceutical education, paying special attention to those areas where general education overlaps or affects pharmaceutical education and vice versa, and to select certain problems for special study and where feasible, suggest methods of attack. Without instruction, the Committee has also considered it expedient to keep in touch with changes and developments in other professional fields such as medicine, dentistry, agriculture, and engineering.

The work of this Committee is continuous. It never ends. It must always be so, for the whole social structure of the world is forever changing. This requires readjustment within the educational program from top to bottom. This requires a constant wrestling with the ravages of time. That wrestling has been going on in the pharmaceutical world since the first attempt was made by pharmacists to organize an educational program. It is evident that any annual report dealing with pharmaceutical education must be one of reporting progress.

During the first half of the twentieth century the Association has dealt with the improvement of the educational program, and its corollary, the improvement of teaching. The work of this Committee has been directed toward these ends. In its last published report, published in the Fall 1955 number of the *Journal*, is given a list of twenty-five problems, which, in the thinking of this Committee, deserve consideration as being major current problems. They do not need to be repeated here. It is sufficient to say that this year's work has contributed many constructive viewpoints which in time will receive due consideration.

It is true that there has been a shift of emphasis upon the suggested problems from year to year. In the latter years it has been placed first upon

the problem of pharmaceutical ethics; then, how to obtain a superior class of students for undergraduate study; then, how to induce the qualified student to enter upon graduate work with teaching and research as his ultimate objective. Finally, the extension of the educational program has forced upon us the problem of the selection and arrangement of both pre-professional and professional studies—a problem of the greatest importance that can be determined only by study and experimentation and by results which have been obtained by related professional groups.

During the year another major problem has emerged, namely, that of public relations, a problem that has too long been neglected. I waited toward the end of the working year in the hope that some member of the Committee would express an opinion on this subject. Since none did so, I presented the problem to the Committee as my own in a letter from which I quote the following:

I have a problem of my own that I have been holding until I could get the thinking of all the members of the Committee, but, under the circumstances, I must present it now if I am to have your reaction to it in time to use it in my annual report.

*The Problem:*

The record shows that the most important problems before the Association have varied but slightly from year to year. Always they have had to do, in the main, with the improvement of teaching. This undoubtedly will always be the case because it is the kind of teaching, and the type of program that determines the standing and the usefulness of a profession.

In recent years the problem of public relations has been budding, and this year it seems to have come into full flower. The educational group is shouting about it from classroom and platform the pharmaceutical press is saturated and bubbling over with it, and the publishing fraternity is producing books telling how and what should be done to improve such relations.

The amazing thing about all this propaganda is that the Chairman of this Committee has not been able to find a single instance where the public has been taken into this discussion as a member of the team. What the public thinks about improving its relations with the drugstore and the druggist might be most revealing.

In my last decade of teaching and administration, both in Nebraska and in Arizona, I was asked by hundreds of high-minded laymen how I could claim that the drugstore was a public health institution and that the pharmacist was a member of the public health team when with one hand he dispenses preventive, curative, and health maintaining remedies and with the other he dispenses alcoholic liquors which are the recognized bedfellows of poverty, debauchery, prostitution, disease, inefficiency, and crime.

This, with one possible exception, is the most embarrassing question that has been put to me in half a century of contact with the public. The other question is one frequently asked of me by the pharmacy student who wanted to know, when he became a pharmacist, would he have to become a purveyor of liquor to hold a job. The same question has been asked me by the students' parents and it is possible that that very prospect has turned away from pharmacy many high-class students that the profession needs.

I want to make it crystal clear that I am not promoting a campaign against the personal use of alcoholics. That is a problem that is up to the wisdom and the conscience of the individual. I do intend to crusade against the greatest incongruity in the practice of pharmacy today, namely, the dispensing of alcoholic liquors in a store which is labeled a public health institution by an individual who purports to be a member of the public health team.

All I want now is the thinking of every member of the Committee. Am I right or am I wrong. If I am wrong, will you give me an answer to the questions raised by the laymen and by the student that will justify the distribution of alcoholic liquors by a member of the public health team from a store that claims to be a public health institution? It is just as simple as that. Period.

Before the Teachers' Seminar in 1953 in Salt Lake City, Utah, Dr. Stephen D. Durrant of the University of Utah said, "The greatest incongruity of all to the zoologist is the fact that by their own admission the pharmacists are dedicated to the welfare of man, who is an animal about which they have had little or no formal training". As one who has been interested in the biological sciences since his early college days, the writer of this report is sympathetic with Dr. Durrant's statement. But as a member of the teaching profession the incongruity deluxe is the one referred to in the letter quoted in this report.

At the time of the writing of this report not all members of the Committee have been heard from. With one exception, they are against the sale of alcoholic beverages in the drugstore. In the case of the exception, the individual has read into my letter something that is not there. Furthermore he does not make a distinction between the dispensing of alcoholic beverages and the sale of nylons, hardware, and other items of like nature. So far as I know nylons do not contribute to debauchery, prostitution, and crime. They belong to an innocuous class of merchandise which under certain circumstances may find a proper place in the drugstore.

I am well aware that I am attacking a problem that many of my very best friends are a party to. But I am also aware of the fact that these good friends are not as happy as they might be as dispensers of alcoholic liquors.

I have brought this problem into the pharmaceutical arena that we may meditate on the problem for a time. I am convinced that in the near future, if pharmacy is to command the respect of the layman, the least the American Association of Colleges of Pharmacy can do is to take a stand against this greatest incongruity in the practice of pharmacy.

Rufus A. Lyman, Chairman

#### REPORT OF COMMITTEE ON RECRUITMENT AIDS

At the May, 1955 (Miami Beach) annual meeting of the Executive Committee it was voted to request the President to designate a continuing Committee on Recruitment Aids of the Association. President Tice subsequently designated the Committee and appointed to it Donald C. Brodie; Charles D. Doerr; Robert W. Sager; Linwood F. Tice; Louis C. Zopf; and Richard A. Deno, Chairman. The Committee is reporting to the Association this year for the first time, but because it developed from three special subcommittees of the Executive Committee, this first report will include a brief summary of the earlier activities of the special subcommittees.

At the April, 1949 (Jacksonville) post-session meeting of the Executive Committee, Chairman Burt designated a special Subcommittee on Brochure to develop an undergraduate brochure on pharmacy. To the Subcommittee he named John F. McCloskey; Louis C. Zopf; and J. Lester Hayman, Chairman. Dean Hayman made progress reports to the Executive Committee in October, 1949, and in April, 1950. Subsequently Linwood F. Tice was appointed Chairman, and he made four reports to the Executive Committee: in November, 1950; in August and November, 1951; and in August, 1952. Deans Hayman and Tice and their committees collected a large amount of data and samples. These materials were made available to the Subcommittee on Brochure appointed in January, 1953, and consisting of Lloyd M. Parks, Louis C. Zopf, and Richard A. Deno, Chairman.

With the aid of the experience and materials from the earlier committees, the 1953 Subcommittee completed layout of the undergraduate brochure, *Shall I Study Pharmacy*, and made it available in November, 1953, at \$20 per hundred, \$180 per thousand, postpaid. Of the first edition, 70,700 copies were purchased and distributed by members colleges, state associations, practicing pharmacists, and the Association itself.

A revised second edition was printed in March, 1955. As of April 1, 1956, more than 100,000 copies of the brochure have been distributed and nearly 50,000 copies of the second edition are or will be available for future distribution. Over 20,000 copies will be included in the packet of guidance publications to be mailed in September to science teachers by the National Science Teachers Association. This mailing will cost about \$6,000 and will be paid for by the Association from funds provided by the American Foundation for Pharmaceutical Education. Other than this special mailing, finances for the brochure have been provided from the general fund of the Association, which has been reimbursed through sales for the cost of printing and mailing but not for some of the administrative overhead expenses.

The brochure has, in general, been favorably received by the member colleges; by pharmacists; and by counselors, teachers, and students. It has been used internally by a majority of our member colleges, and in about one half the states, systematic distribution has been made to all high schools and feeder colleges. In a very few states, systematic distribution has also been made to all public libraries.

*Shall I Study Pharmacy* has received unqualified endorsement from the panel of evaluators of guidance literature of the National Science Teachers Association, from the leading national guidance journals, and from most of the state publications that review guidance material. Without question, a large majority of counselors, teachers, and public librarians are eager to receive such brochures as ours. Also without question, in practically every state financial aid can be enlisted from the profession to subsidize systematic distribution throughout the state to all high schools, feeder colleges, and public libraries.

One of the next projects of the Committee on Recruitment Aids is to outline in some detail a workable proposal for distribution in each state of this and of the more recently produced visual aids to quality recruitment. College personnel will be asked to play an important part in this effort.

The third edition of *Shall I Study Pharmacy* is being prepared by the Committee, with some revision of text and rather extensive changes in illustrations. This edition will probably not appear until about one year from now, at mid-winter 1956-1957.

In April, 1954, the Subcommittee on Brochure met in New York City with officers of the American Foundation for Pharmaceutical Education to discuss informally additional practical and dignified means for attracting well-qualified students to pharmacy, at both undergraduate and graduate levels. Consensus was the Executive Committee of the Association should be asked to present a long-range (three to five year) program of quality recruitment.

At the August, 1954 (Boston) annual meeting such a program was outlined by the Subcommittee on Brochure. It was discussed and revised by the Executive Committee. The program includes production of films and slide films, a graduate brochure, and the subsidized NSTA mailing previously referred to. The Foundation was asked to underwrite the program by a grant of \$100,000 of which 55 percent was requested for 1955-1956 to provide for visual aids to quality recruitment of undergraduate students. The request was approved, first by the Executive Committee of the Foundation and then by the Directors, and \$55,000 was provided for the initial projects. At the Foundation meeting on March 1, 1956, a second grant of \$45,000 was approved by the Directors.

At the Interim Meeting of January, 1955, of the Executive Committee

of the Association, Chairman Zopf announced replacement of the Subcommittee on Brochure by an enlarged Subcommittee on Recruitment Aids with membership the same as currently constituted. The latest action on status of this Committee is as outlined in the first paragraph of this report.

During the past 15 months the Committee has met six times, with all members present every time but for two exceptions. Early in this period Dr. Melvin Brodshaug, Dean, School of Public Relations and Communications, Boston University, was retained as technical consultant to the Committee. Dean Brodshaug is a graduate pharmacist and was for several years Vice President of Encyclopaedia Britannica Films. He has met four times with the Committee and has been of tremendous help at these meetings and by correspondence. The following brief summary outlines major actions taken at the meetings held during the past 15 months.

January, 1955, Ann Arbor. Approval of production of two films and one slide film for undergraduate recruitment. One film (*Design for Life*) to be in dramatic format; purpose: motivation. The second film (*Time for Tomorrow*) to be in documentary format; purpose: instruction on undergraduate program in pharmacy. The slide film to deal with the same material as *Time for Tomorrow*.

April, 1955, New York City. Interviews with producers. Selection of Lloyd E. Young, Executive Producer, Film Productions International, Hollywood, California. Detailed indoctrination of Mr. Young regarding the three items.

June, 1955, Ann Arbor. Detailed consideration with Mr. Young of story treatments of *Design for Life* and *Time for Tomorrow*.

September, 1955, New York City. Approval of shooting script (including narration) of *Design for Life*. Consideration of first draft of shooting script of *Time for Tomorrow* and of visual continuity memorandum of the slide film.

January, 1956, Chicago. Approval of rough cut workprint of *Design for Life*, and of rough cut workprint and narration script of *Time for Tomorrow*. Discussion of distribution and promotion. Approval of (1) closed showing of *Design for Life* to Directors, AFPE, March 1, New York City; (2) invitational press review of all three items, April 4, New York City; (3) first public showing of all three items immediately after but separate from joint dinner of Boards and Colleges, April 9, Detroit.

April, 1956, Detroit. Final decisions on distribution and promotion. Further discussion of graduate aids to be produced. Consideration of copy for third edition of *Shall I Study Pharmacy*, to be made available probably at mid 1956-1957.

Expenditure of the initial grant from the Foundation has given the Association a single print of each of the three visual aids. The Committee has decided to place distribution of the three aids in the hands of a national distributor of rank and experience. As this report is being written such details as distributor, prices, and date available are not settled. Just as quickly as possible after the three items are completed (about April 3) details of distribution will be settled and made known to you. We would again like to advise you of the request to be made subsequently for help from each of you in your state to obtain effective distribution and use of the films and of the undergraduate brochure.

Ancillary to efforts of the Committee were three articles for which the Committee can assume neither responsibility nor credit, other than perhaps credit for having helped to stimulate their production. All three articles were prepared with the cooperation of Dr. W. Paul Briggs, Secretary, AFPE, and have been widely distributed. They have all received endorsement by the Committee.

(1) "Opportunities in Pharmacy," published in 1954 by McKesson and Robbins, Inc. (2) "I'll Take Pharmacy," published early in 1955, also by McKesson and Robbins, Inc. (3) "Should Your Child Be A Pharmacist?" originally published as an advertisement in September, 1955, in *Saturday*



*Evening Post*, *Ladies' Home Journal*, and *Collier's*; later published, as a reprint, by New York Life Insurance Company, 51 Madison Avenue, New York City. Reprints of the last-named article are still available gratis upon request.

The most telling parts of this first report of the Committee on Recruitment Aids are the two films and the slide film. The Committee is proud to have made possible co-sponsorship of these visual aids by the American Association of Colleges of Pharmacy and the American Foundation of Pharmaceutical Education. It has a single reminder to make as you view and evaluate these films: They were not designed to please primarily members of the Committee, staff members in our colleges, or practicing pharmacists. Throughout work on the films, the aim has been to obtain productions with appeal for the thoughtful, good students in high schools and feeder colleges.

R. A. Deno, Chairman

#### REPORT OF THE COMMITTEE ON THE STATUS OF PHARMACISTS IN GOVERNMENT SERVICE

This report will summarize certain developments in the field of pharmacy in government services during the past year. The Committee of the AACP is a sub-division of the general committee which is called the Joint Committee on the Status of Pharmacists in Government Service and which embraces representatives from the American Pharmaceutical Association, the American Association of Colleges of Pharmacy, the National Association of Retail Druggists, and the National Association of Boards of Pharmacy. No meeting of the AACP Committee was held, but a joint committee meeting was concluded in Washington, D.C., on March 17 in the office of the Surgeon General of the Army.

As a representative of the AACP Committee, Dr. Pierre Smith, of Rutgers University College of Pharmacy, attended the Washington meeting. Due to the short notice of the meeting the other members of the Committee were unable to attend.

##### **Army**

An evening meeting on Friday, March 16, provided an opportunity for discussion of some of the problems which were presented to Surgeon General Silas B. Hayes on March 17. It was definitely agreed that the size of the Medical Service Corps of the Army merits a general officer to head it rather than a colonel as is now the case. This was made a recommendation for action by the Armed Services in seeking the achievement of this goal.

The closing of the Pharmacy ROTC units was the subject of considerable discussion, and it was disclosed that, of the schools which had such units, only the University of Wisconsin would continue to operate Medical Service Corps ROTC classes since the requirement that students in advanced ROTC must spend five hours a week in such units precludes most colleges from having students enrolled in the program. This situation may be alleviated if, in planning the five year program of colleges of pharmacy, provision is made to enable students to spend the required five hours a week in the ROTC program. At any rate, it is suggested that where possible, students enroll in a general military science ROTC program and request commissioning in the Medical Service Corps upon graduation. There is no assurance that such a commission will be granted in every case.

Another problem in the utilization of pharmacists in the army is that of the use of certain non-pharmacists in army hospitals in filling prescriptions. This is contrary to state laws requiring that registered pharmacists fill prescriptions in those states. If commissioned pharmacy officers were in charge of army hospital pharmacies, the filling of prescriptions under their supervision would constitute legal procedure.



A time and motion study is being conducted by Major William Austin for the Surgeon General, for whom he is a special consultant on pharmacy, with the object of determining how the army can better employ commissioned pharmacists in medical treatment facilities. It has been recommended, as a result of this survey, that in all hospitals of 100 beds or more, the pharmacy service be established under the Chief of Professional Services as a separate service. In addition, a formulary of loose-leaf type is being compiled for use in such installations. The Army is also considering the establishment of a hospital internship program. Further details in this respect will be reported by the Chairman of the Joint Committee on the Status of Pharmacists in Government Services before the A.Ph.A. convention.

#### **Air Force**

The Air Force is faced with a problem in securing sufficient pharmacists for staffing its hospital dispensaries. Not enough career pharmacists are on active duty in this branch of service, and most of the present supply is from ROTC or from direct civilian appointment. A pharmacy technician school has been opened by the Air Force to help supply its needs. A possible solution to the problem would be the transfer of surplus pharmacists from the Army to the Air Force. Applications for a commission in the Air Force may be had by writing to the Surgeon General, Headquarters U.S. Air Force, Washington 25, D.C. and by sending a brief summary of educational background, experience, date of graduation, and prior military experience, if any.

#### **Navy**

The Navy has 51 pharmacy officers on duty in ranks up to Commander. Most are career officers, and more applications for commissioning are being received than can be accepted. Hospital men are still being trained by the Navy for technical assignments where commissioned officers are not required. For the first time, the pharmacists who desire a commission in the Navy must take one year of training as an enlisted man and then be examined for consideration for the commission.

#### **U. S. Public Health Service**

The status of pharmacists in the U.S. Public Health Service has always been good with 92 officers presently on duty in the regular corps, with over half of the officers in the corps engaged in dispensing medicines in hospitals. A limited number of new billets are to be filled this year from applicants through the Intern Recruitment program. Successful applicants will be commissioned in Ensign equivalent rank. They will have an opportunity to transfer into the Regular Service when a vacancy occurs. For information, have students write to the Surgeon General, Public Health Service, Washington 25, D.C., Attention: George F. Archambault, Pharmacist Director.

#### **The Veterans Administration**

All Veterans Administration hospitals are staffed with registered pharmacists in their dispensaries. Other pharmacists have positions in administration, planning and supervisory work. Staff appointments are from the Civil Service Register. Hospital residency programs have been in operation and are being continued. These residencies are established in cooperation with universities in cities where the Public Health Hospitals are located. Seminars, refresher courses, and hospital pharmacy institutes are regularly attended by Veterans Administration pharmacists. For further information interested persons may write to Vernon O. Trygstad, Director, Pharmacy Service, U.S. Veterans Administration, Washington, D.C.

That the status of pharmacy in government services has improved this year is evidenced by the gains made in the Army where Colonel Bernard Abel was appointed to the post of Chief of Medical Service Corps; Colonel James H. Mackin was made Chief of Pharmacy, Supply and Administration Section, of the Army Medical Corps; and Major William Austin was

assigned as special consultant on pharmacy to the Surgeon General. Studies being carried out by these men will undoubtedly result in improved conditions for pharmacists in the Army, whether career men or inductees. Additional impetus can be provided by continued liaison between the Joint Committee on Status of Pharmacists in Government Service and the Armed Forces and other governmental agencies employing the service of registered pharmacists.

#### Recommendations

To further promote the interests of pharmacists in government service, it is essential that continued action and pressure be supplied by all interested parties. Objectives of the immediate Committee of the AACP might be stated as follows:

1. To put pharmaceutical tasks under the guidance and administration of pharmacists wherever possible.
2. To inform and guide students who will graduate from our colleges of pharmacy of the opportunities which exist in government service, and to amplify data presently available in each of the several services.
3. By publicity and community relations, acquaint Selective Service Boards of their responsibility in maintaining adequate supplies of pharmacists in community drugstores by granting deferments where shortages exist.

To further these objectives the various schools and their administrators can assist by arranging informative programs for students, utilizing the readily available cooperation of the chiefs of the various Government Pharmaceutical and Medical Service Corps agencies. Some of the colleges located in the eastern part of the U.S. have promoted some excellent programs of this type with speakers from governmental services participating.

Another way in which deans can help is to give consideration to ROTC as a possible elective for interested students who wish to obtain a reserve commission, arranging curricula so as to permit time to be available to satisfy the five hour a week requirement of the ROTC.

Only by informing students of their opportunities and by constantly exerting pressure where it will do the most good can the objectives be obtained.

Robert L. VanHorne, Chairman

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*Another angle that may be debated is whether there is any necessity for half the drug stores that are in business today.*

A. L. I. Winne, Am. J. Pharm. Ed., 5, 218 (1941)

## SPECIAL COMMITTEE REPORTS

### REPORT OF THE COMMITTEE ON AFFILIATION OF CANADIAN COLLEGES

This Committee was established in 1955 to investigate the possibility of establishing a new class of membership in the AACP to which, particularly, in this Committee's terms of reference, schools and colleges of pharmacy in Canada might be eligible. At the 1955 Annual Convention of the Canadian Conference of Pharmaceutical Faculties, a Canadian counterpart committee on affiliation was appointed. We have met with this group, and the following recommendations and suggestions are the result of the joint discussion. It appears reasonable that affiliation might very well be a two-way street. There could well be definite advantages to member colleges, particularly those in border states, in an active liaison and relationship with affiliated colleges of the bordering provinces. The Canadian group has indicated great interest in a possible two-way affiliation and are proposing to carry to their own convention recommendations and suggestions as below.

#### Recommendations

1. There shall be established in the AACP and CCPF respectively a class of membership available to colleges of pharmacy in Canada on the one hand and in the United States on the other, such to be designated as affiliate membership.

2. Qualifications for affiliate membership of Canadian colleges in the AACP shall be the minimum standards as defined by the CCPF. Qualifications for affiliate membership of colleges in the United States in the CCPF shall be membership in the AACP.

3. The annual dues for such affiliate membership shall be \$50 (for Canadian colleges in the AACP) or \$25 (for U.S. colleges in the CCPF).

4. Affiliate members shall have all the privileges and responsibilities of active members, except the right to vote and to hold office.

5. Since it may be some time before a plan for affiliate membership achieves complete fulfillment, it is recommended to both bodies (AACP and CCPF) that a continuing liaison at the Executive Committee level be established.

#### Suggestions

Both the AACP and the CCPF are undergoing periodic modification of organizational pattern. It is hence difficult, as a result of one year's investigation of the possibilities of affiliation, to present a more detailed list of recommendations than the above. It may be, however, that the following will serve as additional points of reference for development of further friendly and cooperative liaison between the organizations in the two countries.

1. The committee structure of the AACP and CCPF might be examined and an exchange of the committee correspondence and reports between the appropriate opposite number committees established through the secretaries of the two bodies. Some of such corresponding committees would appear to be as follows.

#### AACP

1. Executive
2. Curriculum
3. Audio-visual Education
4. Predictive and Achievement Tests
5. Recruitment Aids
6. Continuation Studies

#### CCPF

1. Executive
2. Curriculum
3. Audio-visual Aids
4. Vocational Guidance and Student Selection
5. Vocational Guidance and Student Selection
6. Extension Activities and Public Relations

- |   |   |
|---|---|
| 7. Public Relations                                     | 7. Extension Activities and Public Relations  |
| 8. Graduate Education                                   | 8. Graduate Study and Pharmaceutical Research |
| 9. Editor, American Journal of Pharmaceutical Education | 9. Editor, Bulletin of CCPF                   |

2. A committee on affiliation might be established in each of the two organizations. The two committees would meet once a year during the winter to discuss and arrive at recommendations on matters of common interest.

3. One member, preferably the chairman, of each of the analogous committees of the AACP and CCPF might function as a corresponding member of the appropriate committee of the opposite body. As a result of such written interchange of views, each such corresponding member would, after consideration by his own committee, report with recommendations to the committee on affiliation of the parent body. Such reports would constitute the basis for recommendations to be made by the joint winter meeting of the two committees on affiliation. Each of these would subsequently report and recommend at the corresponding annual meetings of the parent organizations.

4. One member of each committee on affiliation might be a delegate to the national meetings and seminars of the opposite body, thereby supplying the opportunity for further discussion and agreement on views between the two organizations.

Daniel H. Murray, Chairman

#### REPORT OF THE COMMITTEE ON CONTINUATION STUDIES

This special committee of the Association was created this year upon recommendation of the 1954-55 Committee on Curriculum(1) to make a study and to report on how the Association can assist member colleges to develop a program of continuation study for pharmacists. The recommendation was adopted by the Association as Resolution No. 13(2) at the 1955 meeting.

The Curriculum Committee reported(1) that it had reviewed continuation study or in-service training for practicing pharmacists as part of its continuing study of the pharmaceutical curriculum with regard to the needs of the profession and the achievement of graduates. It was decided that further consideration of the problem was not within the scope of its duties. However, the Committee believed that the matter deserved further study by individuals within member colleges who are qualified in interest, background, and ability.

Although our Committee is composed of persons associated with active extension or continuation programs, we felt that it would be difficult to commence by correspondence the kind of studies which the Curriculum Committee suggested or those which we ourselves considered worthy. The Chairman suggested to the Executive Committee that perhaps a meeting of the Committee might be worth the expense involved in order that a properly conceived and appropriate study program be initiated. The members of the Executive Committee as well as those of the Committee on Continuation Studies were aware of suggestions which have been made during the past few years that member colleges might benefit from an open meeting at the Annual Convention of persons interested in continuation studies. It was agreed that such a gathering could provide both a forum for the exchange of experiences and ideas by representatives of member colleges and an opportunity for the Committee to determine a course of action for future studies. Accordingly, the Executive Committee authorized the scheduling of such a meeting, and it was held on Sunday morning, April 8, at the Statler Hotel in Detroit, Michigan.

The meeting was attended by fifty-six persons representing thirty-six

member colleges and Seoul National University, Korea. Dean P. A. Foote (University of Florida), Dr. J. L. Voigt (Rutgers University), and Dr. W. S. Apple (University of Wisconsin) presented resumes of their institutions' extension and continuation study programs. Also, a number of others described their colleges' experiences. This led into a spirited discussion of the philosophy, objectives, and purposes of in-service training for practicing pharmacists together with the problems with which colleges have been confronted in offering such programs. The following is a list of points touched upon in this discussion:

1. The attitude and interest of the dean and faculty constitute important factors in the initiation, development and promotion of continuation and extension programs.
2. The AACP should definitely play a role in stimulating and assisting member colleges.
3. Each college must recognize its own particular needs and local conditions in developing programs.
4. Programs should be geared to what pharmacists want and not necessarily to what a faculty thinks the programs ought to be.
5. An AACP newsletter containing resumes of the current experiences of member colleges would be helpful.
6. In-service training should be thought of in its broadest sense and should not be limited to formal offerings such as refresher courses.
7. Each college should conduct studies to determine how pharmacists may be properly motivated to participate in continuation study programs.
8. The lack of finances was considered a major obstacle to colleges. It was suggested that attempts be made to obtain public funds as do agriculture colleges, and also, that individual colleges apply to foundations and similar organizations for grants. Fees charged by colleges could be increased to offset costs.
9. Pharmacy organizations could cooperate with colleges in conducting programs.
10. University administrations should be convinced that in-service training of pharmacists is a responsibility of the colleges, and such programs should be considered budgetarily on the same basis as undergraduate and graduate offerings.
11. Faculty members should be expected to participate in extension work as part of their college obligations along with their teaching and research.
12. Recognition should be given to the need for qualified persons to engage in extension work.
13. In the event that the internship or practical experience requirement for pharmacist licensure should become the responsibility of the colleges for supervision, the extension department would be the logical office for its administration.
14. Employment or job-placement activities of colleges could be considered part of extension work.
15. Colleges should control continuation study programs in pharmacy rather than leave them to manufacturers, wholesalers or organizations.

The high degree of interest, enthusiasm, and numerous excellent suggestions which were expressed by representatives of member colleges demonstrated to the Committee that in-service training for pharmacists is a project worthy of study by the Association. It is recommended that the Committee be continued as initially recommended.

#### REFERENCES

1. Committee on Curriculum, *Am. J. Pharm. Ed.* 19, 522 (1955).
2. Committee on Resolutions, *Am. J. Pharm. Ed.* 19, 559 (1955).

Roy A. Bowers, Chairman

# REPORT OF THE COMMITTEE ON FUTURE ENROLLMENT PROBLEMS

In 1955 the Executive Committee of the American Association of Colleges of Pharmacy authorized an investigation into the problems and plans of member colleges with respect to: (1) a frequently referred to "shortage of pharmacists"; (2) the capacity and ability of member colleges to accommodate a substantial increase in the number of students, should such result from (a) the generally anticipated increase in the number of college students or (b) the recruiting efforts now being undertaken by our Association; (3) the developing pattern of pharmaceutical education.

This committee sought information and opinion regarding these matters by submitting a series of questions to each member college. This report presents a summary of the answers received. The interpretation of the answers is left to the Executive Committee and to the individual reader.

## I Curriculum Patterns

Forty colleges (53% of the membership) show a preference for requiring two years of general education as a prerequisite to a three-year professional college curriculum (2 + 3 pattern). Twenty colleges (27%) prefer one year of general education followed by four years in the professional college (1 + 4 pattern). Four colleges (5%) prefer an integrated five year program (0 + 5 pattern).

Three (4%) are undecided as to their choice. Eight (10%) did not reply although one is known to be presently operating on the 2 + 3 pattern. One member (1%) is presently operating on a 2 + 4 pattern.

TABLE 1. SUMMARY OF PRESENT CURRICULUM PATTERNS  
AND FUTURE INTENTION OR PREFERENCE

<i>Present Pattern</i>	<i>Intended Pattern No. of Colleges</i>				<i>Preferred Pattern No. of Colleges</i>		
<i>No. of Colleges</i>							
0 + 4	0 + 5	1 + 4	2 + 3		0 + 5	1 + 4	2 + 3
41 <sup>c</sup>	2	8 <sup>a</sup>	14		2	4	9
1 + 3							
19 <sup>a</sup>	0	1	10		0	4	3
1 + 4							
3	0	3 <sup>b</sup>			0	0	0
2 + 3							
4	0	0	4		0	0	0
2 + 4							
1	0	0	0		0	0	0

TABLE II. SUMMARY OF FUTURE CURRICULUM PATTERNS BY DISTRICTS

Districts	No. of Colleges Intending			No. of Colleges Preferring			Uncertain	No Reply
	0 + 5	1 + 4	2 + 3	0 + 5	1 + 4	2 + 3		
1	0	0	1	0	0	1	1	1
2	2	1	6	1	1	4	1	0
3	0	0	5	0	1	5	0	2
4	0	1	3	1	5	1	0	2
5	0	3 <sup>a</sup>	2	0	1	0	0	1
6	0	1	8	0	0	1	0	1
7	0	3	2	0	0	0	0	1
8 <sup>b</sup>	0	3 <sup>b</sup>	1	0	0	0	1	0
	2	12	28	2	8	12	3	8

<sup>a</sup> One college in this group intends to administer it also as 0 + 5.

<sup>b</sup> One college in this group intends to change to 2 + 4 in 1957.

<sup>c</sup> Two colleges in this group are undecided.

<sup>d</sup> One college in this group is undecided.

<sup>e</sup> One college in this district is presently on a 2 + 4 pattern.

Of the five colleges which intend or prefer the integrated (0 + 5) curriculum, three believe that a student may transfer after one year (at least 30 semester hours) of acceptable courses in general education and basic science and complete the requirements for graduation easily in four additional collegiate years; the remaining two believe this may be possible.

Two of the above five colleges believe that their proposed 0 + 5 curriculum could easily be completed in three years if the student presented 60 semester hours or more of acceptable courses in general education and basic science; one believes such progress might be possible; two thought it improbable.

Of the 20 colleges who intend or prefer the 1 + 4 curriculum pattern, three predict that a student presenting 60 semester hours or more of acceptable course work in general education and basic science could easily complete their curriculums in three academic years; eleven colleges thought such a program would be possible; five colleges thought this would be improbable; one did not reply.

## II Present College Operations

Fifty-three deans (70% of the member colleges) believe that their colleges are producing less than an optimum number of graduates while 14 (18%) disagreed with this judgement as it applied to their colleges.

Twenty-four deans arrived at the above judgements as a result of some kind of factual information which is available to them. Forty-four deans based their judgement on general impressions gained by contact with others in the profession and personal opinions. The following were the references given:

1. *A Study of Manpower in Texas Pharmacy* published by the Pharmaceutical Foundation and the College of Pharmacy, University of Texas, 1955.

2. *Pharmacy in Michigan*, Richard A. Deno, Ralph M. Wilson, Stephen Wilson, published by the Michigan Council of State College Presidents, 1956. This indicated that an 8 percent shortage of pharmacists for retail practice and a 25 percent deficiency in graduating seniors in the immediate future.

3. There was a survey of manpower needs in pharmacy in 1954 by the New York State Pharmaceutical Association. This was referred to as unpublished by two of the six deans of New York colleges. This "indicated a shortage of pharmacists in most areas."



4. The situation in the State of Idaho is set forth by Mr. J. J. Lynch, *Idaho State Pharmacy Bulletin* for May 19, 1953.

5. Another college indicated that the Missouri State Pharmaceutical Association had some unpublished data on the subject.

6. The two colleges in the State of Washington have determined that their state needs 30 to 40 more graduates each year by their own survey techniques.

Six other deans in widely scattered states have conducted surveys of the needs of their states and have been made aware of the need for more graduates by receiving requests for more pharmacists than they can supply. Two reported this deficiency as more than 50 individuals. Another has information that the shortage in his state cannot be overcome for at least three years.

Impressions of shortage were reported by eight other deans based upon an interpretation of the figures issued by their State Board of Pharmacy and the NABP report in the *NABP Bulletin*, October, November, December, 1955. Four deans in four different states were convinced by the licensing figures and the above report that their states needed no more graduates. This was not subscribed to by the deans of all schools in the two states which had more than one college of pharmacy.

Of the 44 deans who indicated there was no recent survey of the supply and demand of pharmacists in their states, 35 thought there was a less than optimum output of graduates from their colleges. Four of the nine who disagreed with this for their colleges were from states with only one college of pharmacy; the other five deans represented a disagreement with one or more other colleges in four different states.

### III Physical Facilities

It was desired to discover how much unused capacity was presently available in our colleges. Sixty-five colleges reported usable data. These are reported in the following table:

TABLE III. UNUSED CAPACITY FOR STUDENTS  
BY CURRICULUM YEAR

<i>Colleges Reporting</i>	<i>Year</i>				<i>Total</i>
	1	2	3	4	
65	1248	1277	1613	1928	6066
<i>Unused Capacity for Students by Districts</i>					
<i>District &amp; No.</i>					<i>Single College Low High</i>
1 (3)	46	42	59	76	223 0 117
2 (14)	232	216	260	355	1063 14 257
3 (11)	187	191	301	378	1057 4 217
4 (11)	230	228	334	386	1178 29 223
5 (5)	51	52	55	77	235 25 65
6 (10)	238	248	369	312	1157 29 272
7 (5)	134	185	165	234	718 69 314
8 (6)	140	115	70	110	435 29 135

Ten deans indicated that future substantial increases in enrollment in their colleges of pharmacy were tied to the physical capacity of the service courses in their colleges of liberal arts. Four of these answers originated in District 4; four in District 6; one in District 7; and one in District 8. There were indications from two sources that their university administrations were taking steps to increase the capacity of these service courses. One dean suggested that larger legislative appropriations would solve the problem in his institution and one made the following suggestion:

Letters to the proper deans, department heads and to the presidents of the Universities encouraging aid to these departments would help. I know from experience my Dean of University College has appreciated my support in behalf of mathematics, chemistry, and physics. The AACP support would be even more effective, if done in a nice way, i.e., on how essential these areas are to pharmacy, and encourage all possible help to the areas.

Thirty-seven deans had confidence that, should the need be shown, money for both plant expansion and additional salaries and operating expenses were to be had. Eighteen others were of the opinion that additional salaries and operating expenses were to be had but that building appropriations were either unlikely or unnecessary. One replied that funds were now appropriated; one that new facilities were now available; eleven did not reply.

TABLE IV. PERCENT INCREASE IN GRADUATES WHICH WILL MAKE ADDED PHYSICAL FACILITIES NECESSARY (45 COLLEGES)

% Increase	5	10	15	20	25	30	35	40	50	60	100
Graduates	5	10	15	20	25	30	35	40	50	60	100
Colleges	5	4	4	7	4	3	4	3	4	2	5

Thirty-six of the 40 deans who thought their staff adequate for a large enrollment thought that this could be accommodated by better use of the physical facilities presently assigned to the college of pharmacy. Eight of this group felt that it could be accommodated by obtaining additional space now available in their institutions.

Sixteen replies specified the need for new space not now available as being needed for additional enrollment.

TABLE V. NEW SPACE NOT NOW AVAILABLE, WHICH WOULD BE NEEDED TO ACCOMMODATE AN INCREASED ENROLLMENT

	Lect. Rooms	Class Rooms	Biol. Sci.	Laboratories Dispens.	Pharm.
No. of Colleges	10	12	4	9	6
	Phcol.	Phcog.	Laboratories Ph.C.	Physiol	Physics
No. of Colleges	8	4	9	6	5

#### IV Future Enrollment Plans

Fifty-one of the 68 deans indicated that they were contemplating an increase in the number of graduates from their colleges, as a result of the information which they had that an increased number is needed. Fifteen had no plans to do this, and two did not reply. The dates when the increase in graduates is expected to begin range from 1956 to 1965. The most frequently noted date was 1958.

Forty of the deans were of the opinion that their present instructional staff could adequately teach more students than they now teach. Twenty-eight were of the opposite opinion. According to districts these were:

TABLE VI. PRESENT STAFF IS ABLE TO ADEQUATELY TEACH INCREASED ENROLLMENT

	Districts								Total Number of Colleges
	1	2	3	4	5	6	7	8	
Yes	1	6	5	7	4	8	3	6	40
No	2	10	6	4	2	2	2	0	28

Comments on the ways by which the present staff might adequately instruct more students follow:

Twenty-seven answers indicated that larger lecture sections could be used but one disagreed with this.

Five opinions were favorable to demonstrations using closed circuit television; one thought this might be possible but, in his opinion, unnecessary; one questioned its utility.

Twenty-one opinions were favorable to increasing the size of laboratory sections; one suggested more sections rather than larger ones.

On the matter of shorter laboratory periods (2 hours instead of 3 hours) three opinions expressed disapproval; one approved in general; one thought it might be done safely in some areas; three suggested it might be possible for the biological sciences; one suggested chemistry; two suggested dispensing pharmacy; one suggested physiology; and two suggested physics. Thirty-one deans of the 40 did not reply.

Six deans thought a revision of the laboratory experiments might save time and manpower; one thought this was a questionable procedure; one felt it was not necessary, and one wondered about the effectiveness of the suggested revisions. Thirty-one did not reply.

Other suggestions were made that an enlarged student body could be accommodated by increasing the number of lecture and laboratory sections (four responses) and by increased use of audio-visual aids in demonstrations (three responses). One reply suggested the use of more graduate assistants for routine tasks to free the professorial staff for teaching duties.

TABLE VII. STAFF ADDITIONS INDICATED AT SEVERAL LEVELS OF INCREASE IN NUMBER OF GRADUATES (38 COLLEGES REPRESENTED)

Number of Colleges	Increase No. of Grads.	Pharma- cy		Pharma- cology		Pharma- cognosy		Ph. Chem.		Ph. Admin.		Other	
		I	II	I	II	I	II	I	II	I	II	I	II
13	5%	9	6	5	0	0	1	4	3	3	0		
11	10%	4	10	3	6	1	6	1	8	0	1	0	1*
13	15%	8	16	3	6	3	6	3	8	1	2	0	2*
18	20%	13	22	8	18	3	13	7	15	3	1	1*	2*
13	25%	13	18	4	9	4	11	6	15	4	1		

I=Fully trained and capable of supervising instruction.

II=Graduate student assistants.

\* Microbiology

10 No additional staff needed for a 25% increase in graduates.

6 All areas need additions but no specification as to level of increase.

14 Did not answer.

It was estimated that the increased cost of instruction would vary, depending upon the extent of the increase in graduates from 0% to 20% of the present budget for the first year and up to 60% for all four years in operation.

### V The Manpower Supply for Retail Pharmacy

All but one dean expressed an opinion on the manpower situation for retail pharmacy in his city, area or state. Nineteen based their opinions on factual information, the remaining opinions were based on a general awareness of the situation from observation and conversation with persons in practice.

TABLE VIII. OPINION ON MANPOWER SUPPLY FOR  
RETAIL PHARMACY

	No. Colleges	Fact Opin.		City		A Shortage State		Exists In Area		Nation	
				Yes	No	Yes	No	Yes	No	Yes	No
District 1	3	0	3	2	1	2	1	2	1	1	0
District 2	16		12	4	8	8	2	8	1	2	2
		4		0	1	1	1	1	1	1	1
District 3	10		8	2	5	5	2	6	1	3	0
		2		1	0	2	0	1	0	0	0
District 4	11		6	3	2	3	2	4	2	1	1
		5		4	0	5	0	2	0	1	0
District 5	6	0	6	2	4	5	1	4	1	2	0
District 6	10		7	4	0	4	1	3	1	0	0
		3		3	0	3	0	3	0	0	0
District 7	5		2	1	1	2	0	2	0	0	0
		3		0	1	0	1	2	0	0	0
District 8	6		4	2	1	3	1	3	1	1	1
		2		1	0	2	0	0	0	0	0
Totals				29	24	45	12	41	9	12	5

Fifty-one deans out of 65 replies (78%) were of the opinion that the public was *not* being deprived of competent pharmaceutical service by the frequently referred to "shortage of pharmacists."

Thirty-nine out of 62 replies (63%) thought the "shortage" may be causing a hardship for elderly or ill proprietors.

Only 2 out of 60 replies (3%) thought the "shortage" had an effect on the cost of distribution of drugs.

Thirty-nine out of 60 replies (65%) thought that the so-called "shortage" was more a "mal-distribution" than a shortage. Of these 39 replies, 25 thought that regional differences in the salaries paid to registered pharmacists had some effect on the mal-distribution. Only nine out of the 39 replies thought the mal-distribution was caused by the inability of pharmacists to reciprocate freely into all states. Opinion was nearly equally divided that a contributing cause could be some unacceptable differences between urban and small town or rural practice of pharmacy (19 out of 39 thought this had an effect).

Other explanations of the "shortage" or "mal-distribution" were offered by 20 deans. Several such independently arrived at explanations were much the same. The following excerpt from one letter expresses an opinion held by seven of the 20 replies:

A mal-distribution exists because of the inherent provincial characteristics of the students. Many graduates have apprehensions about leaving their hometowns to practice pharmacy in the newer and growing areas of the State. It is in these developing areas where there might be a shortage, while in the established areas there is an over-supply of pharmacies and pharmacists. This results in pharmacists performing tasks and operations that have little to do with the profession. Hence, there is an inefficient use of pharmacists, rather than a shortage.

Other suggested causes referred to (a) inequalities in pay for the hours and responsibilities demanded of pharmacists when compared to other occupations; causing young people to reject pharmacy as a profession; (b) new stores being established faster than pharmacists in the area are being trained; (c) the increase in the number of two-man pharmacies where one-man operation formerly was the practice; (d) lack of effective recruiting efforts by colleges of pharmacy and practicing pharmacists.

The Committee wishes to thank all of the participating deans for the thoughtful way they replied to the questionnaire. The time given for returning the questionnaire was short so that the large number of returned sheets was extremely gratifying.

George L. Webster, Chairman

#### REPORT OF THE JOINT COMMITTEE ON PUBLIC RELATIONS IN PHARMACEUTICAL EDUCATION

Attitudes are the principal targets of any public relations program worthy of the name. Basic to the development of a comprehensive public relations program is the analysis of attitudes. The second step in the program is the determination of the causes of these attitudes, and, finally, an attempt should be made at promoting good attitudes, or attempting to do something about those attitudes that appear to be antagonistic to the proposals that a public relations program seeks to promote.

Since the last report of this Committee, three events have taken place that give this Committee an insight into attitudes held by pharmacy's publics about the profession of pharmacy.

The first event was the Symposium on the Pharmaceutical Industry at Rensselaer Polytechnic Institute. This conference was sponsored by the pharmaceutical industry for over 600 high school teachers, guidance counselors, and principals in an attempt to acquaint the participants with the profession of pharmacy and the industries that make it up.

The second event was the first meeting of this Committee since 1954, which provided an opportunity for the exchange of information, and the development of possibilities for public relations efforts in our member colleges.

The third event was an outgrowth of our Committee meeting. The participants were guests of two local pharmaceutical groups at dinner and an evening of frank discussion. To the best of our knowledge, this meeting, which brought together two deans, one faculty member, two experts in public relations, and three practicing pharmacists, as well as a professional association executive, was the first time such a gathering had convened. The benefits of this meeting will be brought out in a later portion of this report.

To go back to the first event:

Mr. Robert A. Hardt, Vice President of Hoffman-LaRoche, Inc., and no stranger to this audience, served as Chairman of the Program Committee for the Participating Committee of the Rensselaer Conference. He has been most cooperative with this Committee in sharing with us his views on the attitudes expressed by the guests at the conference. Some of his thoughts are so basic to the understanding of our problems that I quote them here. Mr. Hardt reports.

Frankly, the teachers and counselors had not given very much thought to pharmacy as a career. They did not understand the educative process of the pharmacist. Unfortunately, I cannot say that they looked with favor on pharmacy as a career. A few of them were antagonistic to pharmacy because of personal experiences; but most of the teachers, and the counselors for that matter, were quite unaware of pharmacy as a career. I doubt, under the circumstances, that they would recommend pharmacy to a youngster who was highly equipped for science work at the college level.

Mr. Hardt concluded his letter with the following: "In one sentence I can say that I am sure you would have been amazed at the abysmal lack of knowledge that these otherwise intelligent people had regarding our industry and our profession."

Now, what does this mean to this Committee and to this Association? Your Committee feels that this \$125,000.00 expenditure on the part of the pharmaceutical industry serves as a pilot study for the examination of attitudes generally held by teachers and high school guidance counselors

who should be a source of information for prospective pharmacy students. One more quotation from Mr. Hardt serves to point out the value of such informative gatherings. "There was considerable change in attitude expressed at the beginning and at the end of the conference. It is my sincere belief that they had a good impression of the pharmaceutical industry and of pharmacy at the end of the conference."

Your Committee knows that the expenditure of \$125,000.00 on the part of this Association is neither possible nor necessary to help develop a change in negative attitudes on the part of high school people, nor for the development of positive attitudes by those who had never given any thought to a career in pharmacy for the young people whom they counsel. We would, however, urge the adaptation of the industry plan to local level use, in this fashion.

Not only should high schools be visited in the recruiting program of a school of pharmacy but also the colleges and junior colleges in the area served by the school. Only by visitation may the pattern of the different college advisory systems be learned. There are many transfers to pharmacy from students who possess college credit. Perhaps there could be more if those who advise science majors in these colleges knew more about pharmacy.

Any mailing list that includes high school principals and vocational guidance counselors should be expanded to include the heads of science departments, college counselors, and deans of students. This would serve to place information on career opportunities in pharmacy in the hands of people who could possibly offer guidance to a misplaced college student.

High school college advisors and guidance directors could be invited to spend a day at the school of pharmacy. These groups could be informed about career opportunities in pharmacy by the dean and other faculty personnel, could tour the facilities of the school, and, budget permitting, could even be guests of the school at a luncheon or dinner. As one method of control, a radius of 50 miles could be used as a basis for selection of guests. Particular attention should be given to the school's record, so that invitations could be extended to those high schools having a good past record of sending students to pharmacy, and to those schools having a poor record, so as to cover the entire field. By having two different groups, records could help establish the effectiveness of this program.

In the event that the policy of the administration of a particular institution forbids representation at High School Career Day Conferences by other than representatives of the Admissions Office, pharmacy school officers should grasp the opportunity to brief the campus representatives so that they can tell the story of education in pharmacy correctly and effectively.

If the institution's policy is such that each school or department can represent itself at Career Day Conferences, deans and other faculty personnel should be prepared to spend time and effort in promoting education in pharmacy. And, as an added thought, have deans considered the possibility of using pharmacy students as assistants in programs of this type? If the role of the pharmacist is such that he is expected to be able to speak before all types of public audiences, what better place to gain experience at the same time the student serves pharmacy than by speaking before luncheon groups, PTA's, and high school student audiences? Frequently, college of pharmacy personnel may be of assistance to retail pharmacists who are preparing for Career Day talks in their own areas.

Another area worthy of development in attracting students to the study of pharmacy and, at the same time, winning friends for pharmacy is the cultivation of women students for the profession. It appears to the Committee that there should be a special appeal aimed at women; there should be a special letter of recruitment, individual treatment for women by the admissions committee consistent with the admissions policy of the institution, of course, and, most important, a special section in the college catalog or college promotional brochure aimed at women.



The final idea developed from the first event is this: A great many of the schools of pharmacy have student journals or newspapers published by the student branches or other student groups. Deans could well afford to buy additional copies of special issues, such as a Commencement issue, or an issue tied in with National Pharmacy Week, and mail copies of these to high school guidance counselors, high school libraries, and, in some areas, even to applicants for pharmacy. This would add a friendly touch to the entire admissions procedure, and serve to interest prospective students in college life from a student point of view.

The second part of this report deals with ideas arising out of our meeting with the group of practicing pharmacists mentioned in the introductory remarks.

The prophet is reported to have once said, "If the mountain won't come to Mohammed, Mohammed will go to the mountain." We can think of ourselves as prophets for the moment and our practicing pharmacists as a mountain; either these groups will get together or they will remain apart. They can be brought together in many ways, some of which are:

An invitation might be extended to all groups of pharmacists to schedule and hold their meetings on university property, using university facilities. It is a rare group of organized pharmacists that is wealthy enough to afford a building that it can call its own. If the university comes to be recognized as a meeting place for professional activities, many of our publics will become convinced of the worthiness of the activity. The community at large will realize the importance of the profession, alumni relations will be furthered, and so will professional relations, either intra-professional or inter-professional.

Deans and faculty members of all schools of pharmacy should take a more active part in the affairs of local and state pharmaceutical groups, much as they do in national associations. This participation in association activities should be extended beyond the horizons of pharmaceutical groups and should include community activities and scholarly and educational associations of all types. The benefits that can accrue from this type of expansion of contacts is apparent to all of you, we are certain.

You may recall that in a previous committee report we urged that pharmacy schools solicit scholarship and financial assistance from local pharmacist groups to serve two main purposes: First, to provide assistance to deserving or needy students in pharmacy, and second, to provide purpose and a sense of worthwhile activity to the group which sponsors and maintains the scholarship program. At this time, your Committee wishes to add a word of caution. No real purpose is served by accepting a scholarship of financial assistance in any amount this is meaningless in terms of the actual cost of today's college education. By this we mean that a scholarship ought to be worthy of the name. If the cost of a year's education is set at 400 to 500 dollars, what does the recipient of a scholarship gain if he or she is awarded 25 to 50 dollars? The terminology is important here—scholarship help and financial assistance ought to be just that. If the purpose of accepting scholarship and financial assistance is accepted as being those given above, the group presenting the minimal amount ought to be counseled in a friendly fashion and encouraged to raise their grants to be more in keeping with the costs of education. On the other hand, prizes and awards in any amount could be accepted willingly, as this gives a feeling of accomplishment to the group donating the prize. Over years of giving, the amounts here may be raised to a more substantial sum.

While on the subject of finance, this Committee feels that the A.Ph.A. Committee on National Pharmacy Week should be advised of the real effort and expense undertaken by the many groups of students who annually compete for awards for displays during this period. Undergraduate groups are notoriously poor, and, at times, a real financial drain is placed on the group's treasury in competitions of this type. For this reason, we feel that the National Pharmacy Week Committee of the A.Ph.A. should award cash



prizes for student displays, in addition to the awards and certificates that are now presented. Our resolution to this effect appears at the conclusion of this report.

Regarding the coming increase in the number of college-age eligibles, your Committee wishes to commend the Committee on Recruitment Aids for its activities, and to point out that the success of its recruitment efforts, will make for increased emphasis on the attraction of high-caliber students to the study of pharmacy, the public relations of schools, and all levels of professional practice. We might add that a number of our suggestions have a direct relation to recruitment, and only an indirect relation to public relations. We justify our interest in this way; even though recruitment may not attract a young person to pharmacy, the very fact that he, his parents and his teachers have been informed about pharmacy will do much to further understanding of us by these people.

As to the coming change in pharmaceutical education, your Committee offers two suggestions. From the discussion we had with the group of practicing pharmacists, and from reports we have received over the past year, it appears that one of the reasons why there was so much opposition to the extended program was that no one took the time and effort to acquaint all of the publics concerned with the problem. It has been our understanding that where deans and faculty members have gone to meetings of pharmacists and have discussed the extended program, much more understanding resulted. What has worked for others can work for you; if you have a public relations problem in this area, make arrangements to speak before your local pharmaceutical associations. It is not too late to make yourself understood.

Our second suggestion is this: Each school of pharmacy has 70-some odd special publics. These are the other schools of pharmacy. It would appear that those schools with extended programs in operation or in the final stages of development could offer much in the way of background material to schools that are in the process of studying the best ways to implement the program. We call to your attention the functioning groups found in certain states under the title of "Council of Deans," or similar groups. Schools not having such arrangements are advised to consider the advantages to be gained through discussion and resolution of problems of mutual interest.

In our discussions, we have considered the advantages to be gained by the publication of a mimeographed sheet or of a more elaborate type of brochure which lists speakers who will be available for programs in all types of speaking engagements. Publication and distribution of such a list has many advantages, among which are the following:

1. A corps of speakers can be recruited.
2. Topics and subjects can be chosen in advance and restricted to the published list.
3. Proper distribution of this list and proper scheduling of speakers will not overload any single faculty member with speaking assignments in the course of a busy school year.

In the preparation of a speaker's bureau, the faculty members chosen may elect to act as their own agents, or they may request that one person be assigned to act as agent. In any case, once the initial contact has been made, experience has proven that the speaker should deal directly with the representative of the group he is to address. By this arrangement misunderstandings may be avoided, and the school is represented in the best possible fashion.

The problem of requests from the many sources for speakers brings up another topic that will be merely mentioned here, as this is usually a matter of administrative policy. There are two distinct schools of thought on the question of fees for speakers supplied by a college, be they in pharmacy or in any other discipline. One theory proposes that the speaker is worthy of his hire and that failure to ask a fee serves to place a low value on the worth of the speaker. The second theory is that educators are still en-

gaged in education, no matter what group they are facing, be it of day-time college students, a luncheon group, or an evening session. In addressing an audience the educator is still teaching. No matter which theory you subscribe to, make it a policy of your institution and see that the facts are known to avoid embarrassment and misunderstanding at any time in the future.

Finally, we wish to say a word about the display of promotional material that has been arranged for you at this meeting. We have noted a very definite trend toward the use of additional pieces, other than the usual college bulletin of information, all aimed at promoting good relations for pharmaceutical education. Your Committee wishes to commend deans and colleges for their interest in this area of public relations and also to thank them for their enthusiastic support of this first display. It was our thought to prepare a display for this session and limit the material on display to undergraduate brochures. This we have done. We find, however, that there are many other areas where special publications play a part in pharmaceutical education. We refer to alumni publications, recruitment literature at the graduate level, student journals, and other material of a rather amorphous nature.

We propose to repeat this display at our next annual meeting, and therefore offer this resolution: *Resolved*, that the Joint Committee on Public Relations in Pharmaceutical Education begin planning for a display covering the many and varied types of promotional literature used by AACP member colleges, and *be it further resolved* that awards be presented in the form of certificates to the two best entries in each of the classification selected by the committee.

Our second resolution is:

*Resolved* that the American Association of Colleges of Pharmacy strongly urge the Public Relations Committee of the A.Ph.A. to offer cash prizes, in addition to the present awards, to the winning displays of student groups submitted for competition during National Pharmacy Week.

William L. Blockstein, Chairman

#### REPORT OF THE COMMITTEE TO STUDY GRADUATE EDUCATION IN PHARMACY

One of the long-range problems facing the Association is the development and improvement of graduate education in our schools of pharmacy. Accordingly, the Executive Committee, Miami Meeting, authorized the establishment of a committee of the Association to study this problem. The committee, appointed by President Tice, was designated as "The Committee to Study Graduate Education in Pharmacy" and has as its main objectives the determination of what the Association can properly do to improve graduate instruction in schools of pharmacy and the implementation of such studies at the earliest possible time.

Under the stated objectives, there appeared to the Committee to be a number of items which would contribute substantially to this study and these are itemized below along with the thinking and actions of the Committee.

1. Prepare an annotated bibliography of information and past actions relating to graduate education.

It seems highly desirable and appropriate not only for the benefit of the Committee as a working basis but also for administrative officers and interested staff to compile the available information dealing with graduate education in pharmacy and closely allied fields. The Committee is currently engaged in this project.

2. Make a yearly survey of the institutions offering graduate study in pharmacy and determine graduate enrollments in the various areas.

The status of graduate education in our schools should be determined yearly. This has not been done consistently over the years; however, the ACPE, as a special project, did report on "Graduate Programs in Pharmacy as of January 1955." This activity is not being continued by the ACPE. These council data have been revised, however, and published in the Winter, 1956, issue of the *Journal* by The Committee on Recruitment Aids. This activity is to be continued. Total graduate enrollment data are currently being collected and made available by the Chairman of the Executive Committee. This information, however, would be more useful if determined on the basis of enrollment in the various areas of graduate education. The Committee to Study Graduate Education In Pharmacy suggests that the Executive Committee Chairman delegate the collection of annual quantitative data on graduate enrollment to the Committee on Recruitment Aids. Such procedure will enable the collection and publication of these data at the same time as the information on graduate programs and fellowships. The graduate education committee has not accumulated information under this item, in view of the present activity by others.

3. Compile and supply sources of financial assistance available to prospective graduate students.

It is considered important to compile financial assistance available for graduate students in September and get this information into the hands of all interested students by not later than January of each year. Such activity should encourage more students who are capable of doing graduate studies to make application. The Committee on Recruitment Aids is currently carrying out this function, and their first report appeared in the Winter, 1956, issue of the *Journal*.

4. Study school, industry, government, and hospital pharmacy manpower needs for advanced-degree recipients.

The Committee is of the opinion that it is important to attempt to obtain at least a gross idea of numbers of advanced-degree recipients needed in the various fields over the next five years. Questionnaires to be sent to the industry and to the schools are being prepared for distribution during the coming year.

5. Prepare a guide and suggested policy to be used for the establishment and improvement of graduate instruction in schools of pharmacy.

The current thinking of the Committee is that the guide contain information about over-all policy, objectives and areas, staff requirements, space requirements, financial requirements, library requirements, etc. The preparation of this guide might well be considered the ultimate goal of the Committee and is a long-range project which can be done adequately only after the collection of other suitable information such as is referred to in Item 6.

6. Survey industry, advanced-degree recipients, advanced-degree candidates, colleges of pharmacy research staffs, and possibly others for suggestions and policy concerning various aspects of current graduate programs.

To carry out this survey involves the procurement of ideas and information through rather extensive questionnaires and possibly some individual industry and school visitations. Such an activity involves the expenditure of a substantial sum, the amount of which is dependent on the extent of operation. The Committee is of the opinion that this study is important and recommends that the Association instruct the Executive Committee to investi-

gate ways and means of accomplishing this survey to as full an extent as possible, consistent with funds which can be made available.

*Resolved*, that the Association approve a survey of the various aspects of current graduate programs to as complete an extent as possible consistent with funds which can be made available.

7. Study and implement ways and means of increasing the prestige and recognition of graduate pharmacy programs and advanced pharmacy degree recipients.

Tied in with increasing prestige and recognition is the establishment of more complete procedures for the dissemination of information concerning graduate programs in pharmacy and the accomplishments resulting therefrom. In this connection, the Committee investigated *Dissertation Abstracts*, a publication providing abstracts of doctoral theses in various fields for nationwide distribution, and found that no separate provisions are made for listing pharmacy Ph.D. dissertations. Pharmacy Ph.D. dissertation abstracts resulting from work in the various areas of pharmacy are scattered under a variety of headings with no reference to the field of pharmacy as the source. The Committee felt that the number of Ph.D.'s granted in the various areas of pharmacy (there were 113 in 1953-54) warranted separate listing. Accordingly, the Committee contacted the publishers, and they have given assurance that appropriate headings for "Pharmacy Dissertations" will be selected and will go into effect with the first issue of 1957.

Another means of disseminating information concerning graduate program activity and productivity is the preparation of a publication supplying information about each institution offering the Ph.D. degree in the various areas of pharmacy, about each staff member, his research interests and publications, and the publications resulting from graduate research.

*Resolved*, that a publication be provided giving information on faculties, publications, and doctoral theses in pharmacy graduate programs in the United States.

8. Study the continuing problems of uncovering and encouraging qualified students to enter graduate work, preferably in institutions other than the one in which the undergraduate degree was conferred.

A previous resolution in this regard was passed by the Association at the 1949 meeting; and it seems appropriate to reaffirm the action taken at that time.

*Resolved*, that the Association re-emphasize the responsibility of each member college to make a concerted effort to inform qualified students in pharmacy, of the opportunities for graduate study, and of the special advantages to be gained in pursuing work toward a graduate degree in an institution other than the one in which the undergraduate degree was obtained.

9. Consider the establishment of a "Graduate Study Advisory Committee" by the AACP.

The Committee on Graduate Education is of the opinion that the AACP should go on record as being in a position and willing to recommend improvements and advise on general policy in the area of graduate instruction of any member college requesting such information. It is visualized that a Graduate Study Advisory Committee, on invitation by a member college, would be available to visit and act in the capacity of consultants in the

area of the institution's graduate program. Much good could result from this activity if member colleges would have the inclination to take advantage of such a service by the Association.

*Resolved*, that the Association approves in principle the establishment of a "Graduate Study Advisory Committee" to function in the capacity of consultants in the area of graduate education on invitation by a member college, and request the Executive Committee to establish the details of the committee operation and financing.

10. Study the possible effect of the five and six year undergraduate pharmacy programs on graduate programs.

There are two major diametrically opposed viewpoints as to how advanced-degree programs in pharmacy should be conducted in connection with the five and six year professional pharmacy degree programs.

(a) One viewpoint is to adhere to present requirements for graduate training over and above the undergraduate professional degree, thus extending the time required to obtain the advanced degree by one or two years depending on whether the undergraduate program is of five or six years duration. Such a procedure should certainly result in a more highly trained individual. On the other hand, several express the opinion that the superior and scientifically minded students are not apt to be sufficiently stimulated in courses geared for the median student and taught at lesser scientific levels for a full five years. A possible solution to this problem is to offer what might be termed a "Scientific Option" to provide for teaching at different levels depending on student ability and interest. Such programs, however, will probably be few in number and will not supply sufficient students for expanding graduate programs. In addition, because of the extra year required for pharmacy over other basic science graduate programs, perhaps many of the top scientifically minded students will elect to take advanced degrees in other disciplines in which the degrees can be obtained in a shorter period. It should also be kept in mind that the two-year pre-professional years provide time during with other disciplines can attract the superior student who is interested in advanced training. Experience with pre-professional years has already indicated that this does occur, and especially so with superior students. This seems to add up to the possibility of a smaller number of well qualified pharmacy graduates interested in continuing into graduate education at a time when larger numbers of superior research personnel are needed for the extended teaching programs and for expanding industry.

(b) A second viewpoint of the problem is to permit the dual use of some undergraduate degree credits earned in the five or six year professional pharmacy degree program toward the requirements of an advanced research degree, thus maintaining the present time schedule for the advanced degrees (i.e., approximately five years for the M.S. and seven years for the Ph.D.). It is well to point out here that a number of schools have permitted, with minor variations, graduate credit for "dual-level" courses taken during the undergraduate years provided such courses are of graduate level, are in excess of undergraduate requirements, and intent to use said course for graduate credit is stated at the time of registration. This practice is not to be confused with the viewpoint expressed above. This second viewpoint would, of course, materially lower the standards for the advanced degrees unless separate courses of high graduate caliber were provided for the superior and interested student in a "Scientific Option"

as mentioned previously. In this instance, the professional pharmacy degree would be granted at the end of five years and the M.S. degree at the same time or after approximately one summer session or more of additional work. Such a program would be essentially the same as the present system of four undergraduate years and a minimum of five years for the M.S. degree, and would probably violate the intent of the five year program which is generally understood to have been established to provide for more general education and for more logical sequence. The first reaction is that this latter viewpoint probably is not sound policy; however, on critical analysis, if it is a matter of continuing the flow of *superior* students into graduate programs versus the benefits to be derived by adhering strictly to the intent of the five year program, this viewpoint is highly justified. The problem of attracting *superior* students into pharmacy graduate programs is increasingly important to the profession and cannot be overestimated. No school of pharmacy, regardless of whether it is active in graduate instruction or not, can afford to ignore this problem during the coming years of transition to meet the dictates of the five year curriculum. There is a continuing tendency to overlook the fact that the professional standing of pharmacy may be best improved through improvement of the scientific aspects which originate with graduate instruction and are dependent upon the number and degree of excellence of scientifically qualified pharmaceutical personnel. The caliber of professional pharmacy instruction itself is dependent upon the availability of qualified advanced-degree recipients.

In order to bring this problem more forcibly to the attention of the deans and directors, a survey was made to determine what requirements for the M.S. and Ph.D. degrees are now being imposed or contemplated for candidates who have completed a five or six year undergraduate curriculum. The questionnaire was sent to the 43 member colleges offering graduate instruction. Replies were received from 86 per cent of those contacted. Of the 38 colleges responding, 5 have the second viewpoint, with minor variations, and are planning to accept graduate level credits obtained during the last professional year for use toward the advanced degrees. Four of these colleges plan to offer a "Scientific Option" program to stimulate interest in graduate study. Eight additional colleges plan to offer a "Scientific Option" but do not plan to permit dual credit. Twenty-eight of the colleges responding have the first viewpoint, planning to require, in general, a minimum of 6 to 8 years for the M.S. and Ph.D. degrees, respectively. Five schools indicated that the school policy was not yet determined. At least one college plans to offer the B.S. degree at the end of four years, and permit a qualified student to obtain dual residence credit in the fifth year toward the professional degree and the M.S. or Ph.D. degree.

These problems of graduate education in connection with the extended undergraduate program in pharmacy are not easily resolved, and the Committee, therefore, has no clear-cut recommendations. The Committee could suggest the simple and logical policy that no course work be made acceptable for simultaneous credit for an undergraduate and a graduate degree. This policy has been generally accepted by graduate schools for some time on the basis of a four year undergraduate degree. In the case of the five year professional pharmacy degree, however, no minimum number of credits for the undergraduate degree have been established, and some colleges take the view that the undergraduate degree actually terminates at the end of four years. Other colleges do not plan to increase the number of credits significantly in the five year program providing simply for better course sequence in courses now offered in the four year curriculum. Is it not obvious that the superior student could do more than this and in the process be stimulated to continue in graduate education?



The Committee is agreed that a "Scientific Option" or similar system in the professional pharmacy degree program would permit the interested undergraduate student to prepare himself more adequately for graduate study and would result in superior students becoming interested in graduate programs. It is suggested that all schools give serious consideration to this approach, or one of similar intent, in establishing the five year professional degree program.

Of major consideration in all schools of pharmacy in the establishment of the five year professional program, however, is the provision of discovering qualified students and encouraging them to enter into graduate studies by whatever means are possible.

The Committee to Study Graduate Education in Pharmacy is a special committee appointed last May to initiate graduate education studies. However, since many of the important problems are of continuing nature and long range scope, the Committee is of the opinion that the stage has been reached where the Committee should be designated as a continuing one rather than a special one to provide for continuity of operation and membership. Also, the name could well be shortened to "Committee on Graduate Programs".

*Resolved*, that the Committee to Study Graduate Education in Pharmacy be designated a continuing "Committee on Graduate Programs" and that the advantages of at least some carry-over in personnel be respectfully called to the attention of the incoming President annually prior to the time of committee appointment.

J. E. Christian, Chairman

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*Our country is the dearer for our sacrifices. Since the achievement of our independence, he is the greatest patriot who makes the greatest sacrifices. Longer hours, harder toil, greater responsibilities, more inconveniences generally, are of the first order of sacrifices pharmacists are expected to make.*

R. A. Kuever, *Am. J. Pharm. Ed.*, 5, 220 (1941)



## REPRESENTATIVE AND DELEGATE REPORTS

### REPORT OF THE DELEGATE TO THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The 122nd meeting of the American Association for the Advancement of Science was held in Atlanta, Georgia, during the week of December 26, 1955. This is the first meeting at which the Section of Pharmacy (Np) held a full session. The program was arranged by the Vice-President and Chairman, Glenn L. Jenkins, Purdue University; Secretary, John E. Christian, Purdue University; George F. Archambault, U.S. Public Health Service; Bernard E. Conley, American Medical Association; and the local chairman, Kenneth L. Waters, University of Georgia.

Five sessions were held in the Pharmacy Section. The first, a symposium on the application of nucleonics to the health professions, was presided over by John E. Christian, Purdue University, and included talks by five outstanding men in the field of nucleonics. The second, a general session, presided over by Kenneth L. Waters, University of Georgia, consisted of an address by Vice-President Glenn L. Jenkins, and included 10 contributed papers. The third session, arranged by George F. Archambault, was devoted to hospital pharmacy. The fourth session of 12 general papers was presided over by Robert C. Anderson, Eli Lilly and Company. The fifth session, a panel discussion, was arranged by Bernard E. Conley, American Medical Association, and consisted of four talks on hazardous household chemicals and agricultural poisons.

The entire program was well received. Highlights of the program were the symposium on nucleonics and the discussions on hazardous chemicals. The speakers on the symposium included Marshall Brucer (Oak Ridge Institute of Nuclear Studies); Henry Blair (University of Rochester); Howard E. Skipper (Southern Research Institute); L. E. Brownell (University of Michigan); and G. E. Burch (Tulane University). Of the many points brought out, the use of gamma rays for sterilization of drugs is perhaps of especial interest. In the panel discussion of hazardous chemicals talks were given by B. E. Conley, W. J. Hayes, Veronica L. Conley, and L. M. Petrie. Stress was laid upon the growing problem of harmful exposure to chemical substances, a subject not well understood by physicians and scientists.

A number of interesting papers were presented, of which at least 12 were contributed from laboratories of colleges of pharmacy.

The next winter meeting will be held in New York City in December. It has been suggested that since New York is an area of high concentration of pharmaceutical industry, at last one session of this meeting be devoted to industrial pharmacy. It has also been suggested that each college of pharmacy send a representative, if possible, to the AAAS meetings, and that members of college of pharmacy staffs be encouraged to present papers before Section Np.

Since your representative was unable to attend the Atlanta meeting, he is indebted to Dr. Louis D. King of Rutgers University, who attended the meetings and helped to write this report.

John M. Cross, Delegate

### REPORT OF DELEGATES TO THE AMERICAN COUNCIL

#### ON EDUCATION

##### *Annual Meeting*

The thirty-eighth annual meeting of the American Council on Education was held at the Statler Hotel in Washington, D.C., on October 6 and 7, 1955. Representing the American Association of Colleges of Pharmacy were Karl

L. Kaufman and Joseph B. Sprowls, delegates. Charles Bliven attended some of the sessions as an alternate delegate.

For the third successive session attention was devoted to the problems created by the rising tide of student enrollment. This year's program was devoted specifically to the topic, "Goals and Progress in Planning for the Future of Higher Education." The meeting consisted of an opening general session, followed by two groups of section meetings and a final business session. Although it was impossible for two delegates to attend all sessions, an effort was made to participate in those which might be most meaningful to those who have an interest in the problems of pharmaceutical education.

At the opening session, President Kiewiet outlined some of the problems which will soon be facing institutions of higher learning as a result of the increased number of potential college students. One consideration which he deemed of importance is the realization that the demands of primary and secondary education are most acute at this moment and are taking precedence over the needs of higher education. It must be recognized, he declared, that our requests will be presented after the states and communities have met the staggering bill for increased primary and secondary education. President Kiewiet reminded his listeners that we might be forced to solve our problem by imposing great restrictions upon the number who are to be given the opportunity of attending college. By contrasting European educational systems with the American, he indicated some of the social and political problems which may arise if we are forced to adopt methods designed to limit college enrollments.

President O. C. Carmichael of the University of Alabama outlined some of the procedures which have been followed by various state and regional groups in studying their current needs and in projecting them to the future. These studies have pointed out the enormity of the problem and the difficulty which will be encountered by those states which have not yet undertaken any long-range planning. President Carmichael pointed to additional problems which need attention: One, the possibility of devising a more efficient undergraduate program and, two, the need for additional instruction in subjects which have become important as a result of the prominent position which our country now holds with respect to world politics.

The following topics were discussed in the section meetings: "How the Education Process can be Shortened to Advantage," "Helping Qualified Students to Continue their Education," "The Responsibility of Higher Education for Helping Develop International Understanding," "How is the Supply of Able College Teachers being Increased?," and "How can the Available Resources be Stretched."

The discussion sections touched upon almost every conceivable opportunity for increasing the efficiency of the available educational resources. Topics ranged from better selection and advisement of students to better utilization of faculty and facilities. Since it was impossible for the delegates to be present in all sections, the following report will represent only a partial coverage of the total discussion.

With respect to the selection of students, it was suggested that a good program for identification of ability would have the following characteristics:

1. The program will reach all schools in a given area.
2. The program will combine three elements; scholastic ability, school records, and recommendations for teachers.
3. The program will provide publicity to the runners-up as well as to the winners.
4. The program should reach students early so that they may take the proper courses in high school.

Mention was made of the fact that financial assistance, such as scholarship aid, should be provided on the basis of promise as well as upon proven ability in order that underprivileged, but competent, students may not be overlooked in the more competitive situation which will arise.

It was suggested that the economic factor as a deterrent to college

attendance has been overemphasized and that many potential students have used this as an excuse when there were actually sources of aid available. A suggested remedy was the conversion of some scholarship funds to loan funds in order to make the resources extend further.

Although it was admitted by all speakers that we are soon to be faced by critical problems in higher education, an important note was sounded by Dr. Oliver C. Carmichael, President of the University of Alabama, when he said, "Quality standards must eclipse quantitative considerations."

Suggestions regarding the better utilization of physical resources dealt mostly with the possibility of extending the hours of operation, using "staggered" schedules in order to increase utilization of laboratory space particularly, scheduling classes during the evening hours as well as the daytime hours, and "breaking up" the heavy Monday-Wednesday-Friday schedules by using Tuesday-Thursday-Saturday schedules.

With respect to better utilization of potential faculty members, it was suggested that colleges may utilize to good advantage retired public school teachers, qualified business or professional men who would be able to lecture during late afternoon or evening hours, and possibly superior undergraduate students.

Speakers at the annual dinner meeting were Dr. Arthur S. Adams, who presented the Annual Report of the American Council on Education, and the Honorable Harold C. Hunt, Under-Secretary of Health, Education and Welfare.

Miss Katherine E. McBride, President of Bryn Mawr College, was elected Chairman of the Council for the coming year.

The *Educational Record* for January, 1956, carries the President's Annual Report, the addresses, and the minutes of the thirty-eighth annual meeting.

Karl L. Kaufman, Joseph B. Sprowls, Delegates

#### *Special Meeting*

The American Council on Education held a special meeting of its constituent members on March 19 and 20 for the purpose of drafting a statement on the problems of higher education. This statement is to be submitted to the President's Committee on Education Beyond the High School. It is titled, "The Strength to Meet Our National Need."

Among the major problems discussed were demands for skilled manpower, the need for a larger supply of qualified students, and the need for a larger supply of qualified teachers. A general statement was presented to the group on the second day. It was discussed, amended and adopted with instructions for careful editing. (See *Higher Education and National Affairs*, March 23 issue.) The President's Committee also will receive copies of the formal papers presented.

Your delegate has selected for inclusion in this report only a few of the many subjects discussed. It is hoped these will prove of special interest to this group.

In his opening address on "Higher Education and American Society," Dr. Bowles of the College Entrance Examination Board made these predictions:

1. The development of more new professions and semi-professions with supporting programs of education leading to new degrees.
2. Continued emphasis on technological education.
3. Increase in graduate education for teacher education, the further development of advanced professional education, and probably some further development of existing graduate education.
4. Increased emphasis on talent searching, guidance, and placement for the better use of both human and educational resources.
5. Continued shrinkage, percentagewise, of the liberal arts groups within higher education, counterbalanced, from the liberal arts viewpoint, by continued increase in the liberal arts content of professional education.

On the subject of the need for a larger supply of qualified students, it was pointed out that a committee of the ACE had discovered it lacked the

data to recommend a National Scholarship program at this time. Indeed, the lack of proper guidance and counselling may be a greater obstacle to college attendance than lack of finances. A clearing house of up-to-date information on scholarships is indicated, as well as better and earlier identification of those who can profit by a higher education.

The present ratio of instructors to students in our country is about 1-13. If this ratio is to be maintained, we will need 60,000 more teachers by 1960. There is a shortage of candidates for doctorate degrees in the sciences. It appears that the colleges will have to be content with less than 40% doctorates on their faculties. Furthermore, since we cannot compete with industry salary-wise, we must provide opportunity for satisfactory conditions of work. These conditions will include (1) the best salaries the colleges can afford, (2) academic freedom, (3) reasonable teaching loads, (4) good retirement policies, (5) education of children of faculty members, and (6) adequate library and laboratory facilities. In spite of these things, we still must rest our case upon the satisfaction to be found in teaching.

In addition to the administrative arrangements listed, it was suggested that the colleges could find some teaching help in the following ways: (1) industry can supply teachers on a part-time or loan basis, (2) the teachers' time could be used more effectively, through greater utilization of assistants and audio-visual aids, and (3) reconsideration of retirement regulations. These suggestions include an evaluation of the assumption that a low teacher-student ratio produces better teaching in every case, and that publication and research are essential prerequisites to promotions. Furthermore, it was pointed out that the colleges lagged in the employment of women. It also was suggested that perhaps the most basic need of the college teacher was prestige; that if he could achieve this, many problems, including that of salaries, would be solved.

Rather than double the present physical plants of the American colleges, it was recommended that (1) much greater utilization be made of our current facilities, including the scheduling of evening and Saturday classes, (2) elimination of many small classes, and (3) closer cooperation between junior and community colleges and the large universities.

Only one speaker specifically suggested federal aid to higher education. Several touched on the following points; (1) A serious indictment of higher education is noted in the failure of the college teacher to increase his productivity. (2) A higher percentage of the tax base, both state and municipal, will be needed to care for the increased numbers of students. (3) College libraries should receive approximately twice the financial support they are getting presently.

Karl L. Kaufman, Delegate

#### REPORT OF THE DELEGATES TO THE AMERICAN FOUNDATION FOR PHARMACEUTICAL EDUCATION

The American Foundation for Pharmaceutical Education continued to make progress on all fronts during the past year. There was a substantial increase in the number of contributors and in total contributions, and this coupled with the larger income from capital assets, so greatly enhanced by the Gustavus A. Pfeiffer bequest, made it possible to considerably expand its activities.

During 1955 contributions amounted to \$170,250.00, and for 1956 they are expected to rise to \$185,600.00. The Foundation's investment portfolio was valued at \$1,434,194.00 as of February 15, 1956, and in addition there was a cash balance of \$112,848.56. It is estimated that the income from the investments will amount to \$47,000.00 during the current year, thus providing a total income of \$232,000.00.

The Foundation income is calculated on a calendar-year basis for the convenience of the contributors, but the expense budget covers the period from September 1 to August 31 so as to more nearly coincide with the

school year; this renders it difficult to make exact comparisons between income and expense for any twelve-month period. The expense budget for 1955-56 amounted to \$251,450.00, and the budget adopted at the annual meeting on March 1, 1956, for the year 1956-1957 provides for expenditures totaling \$262,250.00 or an increase of about \$11,000.00 and an excess of about \$30,000.00 over estimated income. In this connection, however, it should be noted that this budget includes a non-recurring item of \$45,000.00 for completing the Pharmacy Student Recruitment Program of the American Association of Colleges of Pharmacy. Details of this activity will be presented by Dr. Richard Deno, Chairman of the committee in charge of the project.

Other expenditures included in the budget for educational projects are as follows.

Graduate Fellowships and Teaching Fellowships .....	\$105,000
Gustavus A. Pfeiffer Memorial Research Fellowships .....	10,000
Undergraduate Scholarships .....	18,000
The American Council on Pharmaceutical Education .....	25,000
Teachers' Seminars .....	7,000
The American Journal of Pharmaceutical Education .....	5,000
Newcomb Memorial Awards .....	750

These amount to a total of \$170,750.00 and together with the recruitment expense add up to \$215,750.00.

Thus it can be seen that the Foundation is a potent factor in providing scholarships and fellowships in our colleges and in furthering many important activities in our Association. As President Kerrigan in his annual report so well said, the Foundation is "an indispensable instrument in the progress of pharmacy."

Dr. W. Paul Briggs, Secretary and Executive Director of the Foundation, presented the following on graduate fellowships which should be of interest to the members of our organization.

Total graduate Fellowships awarded 1946—February 1956 .....347

Fellowships awarded 1955-56 academic year at  
29 universities ..... 79

34 new Fellowships.  
2 new Teaching Fellowships  
41 renewed Fellowships  
2 renewed Teaching Fellowships

Total AFPE Fellows graduated 1947 to February 1956 .....245

Degrees received:

Ph.D. ....	191
M.S. ....	48
M.B.A. ....	5
D.Sc. ....	1

It is considered significant that AFPE Fellows remain in the field of pharmacy and are currently distributed:

- 157 as teachers in 72 U.S. and 10 foreign colleges of pharmacy.
- 67 as research, production and development workers in 34 U.S. and 4 foreign, drug and chemical manufacturing companies
- 16 in pharmaceutical services with the U.S. Army and Navy, Public Health Service, other U.S. Departments, professional associations, etc.
- 6 in the practice of pharmacy
- 4 are unclassified.
- 10 are pursuing graduate studies but are not currently holding an AFPE grant.

These data provide impressive evidence of the productiveness of the Foundation's program in support of graduate education in pharmacy and related fields. This is the basic program upon which all other educational efforts rest. The infusion of 157 new, Foundation-supported Fellows into our teaching ranks has contributed a major share toward the progress of pharmaceutical education since 1947. But the need for more and better

teachers has not been satisfied, so this Foundation program should not only be continued, but should be expanded as soon as funds permit.

This concludes Dr. Briggs' remarks on this subject, and it should be noted that contrary to frequently expressed opinions the majority of AFPE Fellows remain in the field of education in a ratio of more than two to one as compared with industry.

Officers of the Foundation elected or re-elected at the March 1, 1956, meeting were as follows: President, James L. Kerrigan, Chairman of Executive Committee, Merck & Co., Inc.; Vice President, Francis C. Brown, President, Schering Corporation; Treasurer, Howard B. Fonda, Senior Vice-President, Burroughs Wellcome & Co., Inc.; Counsel, James F. Hoge, Rogers, Hoge and Hills; Secretary, W. Paul Briggs. Directors: Alvin G. Brush, Chairman of Board, American Home Products Corp.; Richard A. Deno, University of Michigan; Hugo H. Schaefer, Brooklyn College of Pharmacy; Charles R. Walgreen, Jr., President, Walgreen Drug Stores; John G. Bill, President, Sharp & Dohme; John A. Crozier, General Manager, Calvert Drug Company. Members Executive Committee: C. S. Beardsley, Chairman of Board, Miles Laboratories, Inc.; Richard A. Deno, University of Michigan; Charles D. Doerr, Vice President, McKesson & Robbins, Inc.; H. A. B. Dunning, Chairman of Board, Hynson, Westcott & Dunning; Harry J. Loynd, President, Parke, Davis & Company; Hugo H. Schaefer, Brooklyn College of Pharmacy; Robert L. Swain, Topics Publishing Company; Charles R. Walgreen, Jr., President, Walgreen Drug Stores.

The AACP continues therefore to be represented on the Board of Directors by Linwood F. Tice, George L. Webster, Louis C. Zopf, Richard A. Deno, and Hugo H. Schaefer. The latter two also serve on the Foundation Executive Committee.

Hugo H. Schaefer, Delegate

#### REPORT OF DELEGATE TO THE AMERICAN PHARMACEUTICAL ASSOCIATION

Inasmuch as the House of Delegates has not yet been in session, my report deals mainly with the Executive Committee resolution concerning future procedure for this report, with brief mention of educational actions taken at the May, 1955, convention.

The minutes of the interim meeting of the Executive Committee held in November, 1955, include the following statement: "President Tice directed attention to the fact that our Delegate in the House of Delegates of the American Pharmaceutical Association has not customarily reported to the Association because his report would of necessity be one year late." It was the Committee's opinion, however, that the member colleges should be informed of A.Ph.A. action of particular importance to the AACP. It was voted, effective this year, that the delegate would write up his report soon after the A.Ph.A. meeting and submit it through channels for prompt publication in the *Journal*.

This same general situation applies to representatives or delegates to the American Council of Education, the National Drug Trade Conference, and the National Wholesale Druggists' Association. This meeting then will be the last one at which the A.Ph.A. delegate will report on the previous year's meeting. In the future his summary here will consist of brief discussion of his report published previously, and a motion to have it accepted.

This procedure is a sensible one, and I am sorry it is not in operation now. Because it is not, I must mention the 1955 activities of the A.Ph.A. House of Delegates with which we are concerned, even though they are nearly a year old.

The information presented here was obtained from Dean Newton, the 1955 delegate to the House of Delegates. Two resolutions were presented by our group to the A.Ph.A. One, which became their resolution No. 31, was



from the Conference of Teachers. It asked that the meetings of the A.Ph.A. and the AACP be held during the summer months. The resolution was tabled.

The second, their resolution No. 32, was from Dean Ferguson. It asked that the A.Ph.A. consider the sponsoring of a World Congress of Pharmacy in 1957. The resolution was referred to the Committee on International Relations which was already considering the subject.

These were the only official actions of the A.Ph.A. which dealt directly with the AACP.

The 1956 delegate will carry out the directive of the Executive Committee and submit a written report to the chairman of the Executive Committee within a few days after this year's meeting. (*Editor's Note: This report will appear in the Fall issue.*)

Tom D. Rowe, Delegate

#### REPORT OF THE REPRESENTATIVES TO THE NATIONAL DRUG TRADE CONFERENCE

The annual meeting of the National Drug Trade Conference was held on December 5, 1955, in New York City. The three representatives of the American Association of Colleges of Pharmacy, Dean Roy A. Bowers, Dean L. F. Tice, and Dean Hugo H. Schaefer, were all in attendance.

The meeting was opened by President Frederick J. Cuilen who stated that he had appointed an all-industry committee to honor Harry J. Anslinger for his many contributions to public welfare during his twenty-five years of service as Federal Commissioner of Narcotics. In behalf of the Conference, Dr. Robert L. Swain presented a suitably inscribed plaque to Mr. Anslinger with appropriate expressions of appreciation. Mr. Anslinger briefly voiced his thanks and complimented pharmacy for its continued cooperation and strict adherence to narcotic laws and regulations.

Secretary-Treasurer R. C. Schlotterer presented his financial report showing a cash balance of \$219.67.

There followed the report of Harold C. Kinner, Chairman of the Committee on Uniform State Legislation. The work of this Committee, of which our delegate, Roy C. Bowers, is a most active member, is no doubt the most important current activity of the Conference. The Committee is studying the restrictive sales problem with a view of reaching a mutually satisfactory agreement among the constituent members. In addition, the matter of barbiturate controls also received the attention of this Committee. While definite progress was made, no final conclusions were reached on the restrictive sales problem, and the Committee is therefore continuing its work this year. The recommendations concerning barbiturate controls are given in a resolution attached to this report.

Papers were presented by Dr. Frederick D. Lascoff on the subject of duplication which dealt with the problems created by the marketing of similar or identical drug products by numerous firms; and by Newell Stewart of the National Pharmaceutical Council on the subject of brand substitution. A lengthy and searching discussion followed, covering such matters as whether the needless duplication of drug products encourages brand substitution and the associated problem of imitation and counterfeiting. All agreed that brand substitution is both illegal and unethical and should under no circumstances be condoned.

J. O'Neill Closs of the American Pharmaceutical Manufacturers' Association then presented a report on industry public relations. In the discussion which followed, all agreed with Mr. Closs that there was a great need for such a program but opinions differed as to the agency or association best qualified to undertake and finance the project.

Newell Stewart, in behalf of the American Pharmaceutical Association, read a report on the proposed Pan-American Congress of Pharmacy to be held in the United States in the fall of 1957. He described the nature and



type of meetings held in other countries in the past and stressed the need for our industry to support the project if the prestige of American pharmacy in Latin America is to be maintained. He recommended that the arrangements and the financing of the Congress be taken over by an industry-wide committee, representing all segments of drug production and distribution. He also presented estimates of probable costs and attendance, a plan of organization, and a tentative program of meetings and social events for such a Congress. His report was referred to the Resolutions Committee which endorsed the suggestions and received the unanimous approval of all the delegates.

It might be well stated here that at a subsequent luncheon meeting of industry leaders held in New York City, under the auspices of the American Pharmaceutical Association, general approval was expressed in favor of supporting the proposal, and a committee was established under the chairmanship of Robert Hardt.

There followed a discussion of the celebration being held this year commemorating the life and work of Dr. Harvey W. Wiley on the occasion of the 50th anniversary of the passage of the Wiley Pure Food and Drug Act of 1906. The Executive Committee of the Conference was directed to take appropriate action for suitable participation in this event.

Attention was also called to the fact that 1956 represents the 25th year since the passage of the first Fair Trade Act. It was voted that appropriate recognition be given to this anniversary, and the matter was referred to the Executive Committee.

Mr. J. K. Worley, Chairman of the Resolutions Committee, presented his report, and the resolutions which were adopted by the Conference are attached.

Officers elected for the current year are as follows: President: Hugo H. Schaefer; Vice President: Harold C. Kinner; Secretary-Treasurer: Ray Schlotterer; Members of the Executive Committee: Karl Bambach, Robert P. Fischelis, John Closs, Ray Schlotterer, Harold C. Kinner, Harry Kimbriel, Carl Willingham, John Dargavel, F. J. Cullen and Hugo H. Schaefer.

#### **Resolutions Adopted by the Drug Trade Conference—Dec. 5, 1955**

##### *Restrictive Sales*

(1) *Resolved* that the National Drug Trade Conference recognizes the restrictive sales controversy and the solution thereof as the most important contemporary problem confronting the members of the Conference and authorizes the Committee on Uniform Legislation to undertake a study of the problem in conformity with its report as this day adopted by the Conference, using the outline contained therein, and to make recommendations; and

*Be it further resolved* that said Committee is authorized to engage competent staff and clerical assistance for this purpose and to incur expense therefore in an amount to be approved by the Executive Committee.

##### *Barbiturate Problem*

*Resolved* that it is the consensus of the National Drug Trade Conference that the further regulation of all hypnotic and somnifacient drugs shall be the subject of individual state and not federal action and;

*Be it further resolved* that the proper officers of the National Drug Trade Conference cooperate with the officers of the Council of State Governments to the end that both join in a common effort to back a uniform state act which is not in conflict with the uniform act approved by this Conference.

##### *Public Relations*

*Resolved* that if and when it is deemed necessary that a public relation program be instituted in behalf of the profession of pharmacy and the drug industry, and their common problem; all organizations holding membership in the National Drug Trade Conference

and their affiliates be requested to participate in the planning and execution of such program and that identification of such program specifically avoid the naming of any segment of the industry or profession.

*Salk Vaccine*

*Resolved* that it is consensus of the National Drug Trade Conference that upon the expiration of the current appropriation, all future distribution of Salk Polio Vaccine follow traditional distributive channels and that free distribution be limited to the indigent.

*Pan-American Conference*

*Resolved* that the National Drug Trade Conference join in the sponsorship of the Fourth Pan-American Congress of Pharmacy and Biochemistry and urge its constituent members to participate actively in the organization, financing and implementation of the program of the Congress.

R. A. Bowers, L. F. Tice, Hugo H. Schaefer, Representatives

#### REPORT OF THE REPRESENTATIVE TO THE NATIONAL WHOLESALE DRUGGISTS' ASSOCIATION

The eighty-first annual meeting of the National Wholesale Druggists' Association was held at the Greenbrier Hotel in White Sulphur Springs, West Virginia, November 5th to 9th, 1955, with President Herman C. Nolen of New York City presiding.

Three well-planned, informative business sessions were held, each of which stressed a particular theme for the meeting.

The first session stressed "Increased Economic and Professional Interdependence" and emphasized that "It is good business" for the retail pharmacist "to do business with service and wholesale druggists."

President Nolen in his address entitled "Now is the Time" cautioned the members from trying to do business in 1956 with 1941 plans and policies. In a dynamic address he listed five problem areas in the drug industry, namely: (1) Strengthening customers; (2) Securing increased sales; (3) Pricing problems; (4) Service problems, and (5) Problems on increased costs. He offered practical solutions for each of them.

Thought-provoking addresses were presented by the Hon. Walter Williams, Under-secretary of Commerce, entitled "Business Prospects—to 1957," and by Joseph P. Spang, Jr., President of the Gillette Company, entitled "The Drug Industry Must Chart Its Course." Mr. Spang painted an appalling picture of the profit structure of American industry in which he pointed out the vastly increased sales volume and compared it with the comparative meager net profits.

The second business session had as its theme "A Pattern for Success," and the program developed the "4-Plus Prescription Plan" which has become an objective of the NWDA for 1956, an increase of 4 prescriptions per day for each drugstore. The program is well conceived and is being developed throughout the country by the service wholesalers. Your Representative expressed to President Nolen his belief that the faculties of our colleges of pharmacy would be glad to assist in any way they could with the development and success of this program.

Eugene N. Beesley, President of Eli Lilly & Co., in an address on "These are the Facts" presented factual information concerning the development of the drug business over the past 14 years and then compared this business with the trend of population, disposable personal income, prices of prescriptions and drugs, and other indexes of economic growth of our country. He predicted a "market of \$1,650 million annually for prescription products within the next ten years. This is an increase," he said, "of \$650 million over the present market at manufacturers' selling prices and is based on an expected increase of 27 million in the population of the United States within the

next decade."

The third session had for its theme "Look to the Future," and several excellent addresses were presented, highlighted, it seemed to me, by "Tomorrow's Drug Store: a Look into the Crystal Ball" by Dan Rennick, Editor of *American Druggist*. The paper is a careful analysis of trends now in the making which are used as a basis for predicting the basic features of the drugstore of 1980. The address is to be found in the November 21, 1955 issue of *American Druggist* and is recommended to those who have not already read it carefully. A few of the highlights of "Tomorrow's Drug Store" are: (1) that one third of all the drugstores will be located in the big cities, one third in the suburban areas, and one third in the small towns or rural areas; (2) that 10,000 drugstores will be located in shopping centers, and 2,000 will be located in or adjacent to medical clinics; (3) that the prescription department will account for between 35% and 40% of the total drugstore volume, compared with 25% today; (4) that the entire front third of the drugstore will be devoted to prescriptions, drugs and other sick room products. (5) The store area will be at least twice the size it is today, and (6) most drugstores will use self-service traffic departments located in the rear of the stores.

The 1956 meeting of the NWDA will be held in Florida, and in 1957 it will return to the beautiful Greenbrier in White Sulphur Springs, West Virginia.

J. Lester Hayman, Representative

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*Most of us spend more of our time working than doing anything else. If we but realize that we have to get our fun out of our work (or else we will not have much) and that work is more fun than anything else in the world, we're in a position to enjoy life.*

Stanley D. Long, *Am. J. Pharm. Ed.*, 5, 346 (1941)

## EXECUTIVE COMMITTEE

### MINUTES OF THE ANNUAL MEETING

Statler Hotel, Detroit, Michigan April 6-7, 1956

Chairman Zopf called the meeting to order at 9:00 A.M., April 6.

Present: Members Bliven, Bowers, Burt, Christian, Deno, Gibson, Hewitt, Orr, Tice, Zopf, and Consulting Editor Lyman.

On motion Bowers-Hewitt, *it was voted* to approve minutes of the Interim Meeting held in Ann Arbor on November 17-18, 1955, as published in the Winter, 1955, issue of the *Journal*.

A revised agenda consisting of the numbered items of these minutes was then considered.

#### 1. Communications

a. *From Dean Emeritus B. V. Christensen*, calling attention to expiration of his term as delegate to the ACPE, requesting that he not be considered for reappointment, and thanking the Association for this opportunity for service. The Chairman has expressed appreciation and good wishes to Dr. Christensen on behalf of the Association, and the Executive Committee strongly endorsed these sentiments. (See item 3b, Minutes of 1956 Post-Session Meeting.)

b. *From Dean John G. Adams*, asking if pharmacy will be included in the proposed Public Health Service construction grants for the health professions, ref. Higher Education and National Affairs, V, 4, 2-3, Feb. 17, 1956. Discussion included recognition that omission of pharmacy by name from the original proposal may be an unfavorable omen, and indicates a disadvantage resulting from the Association not having active representation in Washington. Consensus was request should be made for inclusion of pharmacy in the proposed program, drawing on data from the forthcoming report of the Committee on Future Enrollment Problems if these data prove to be pertinent. On motion Bowers-Hewitt, *it was voted* to introduce a resolution at this meeting authorizing request for inclusion of pharmacy in the program (see 1956 resolution 26).

c. *From T. W. Van Arsdale, Jr.*, first Vice-Chairman, Development Section, American College Public Relations Association, describing organization of the Section, which is devoted to helpful service in fund-raising activities. Mr. Van Arsdale offered cooperation and suggested the AACP might "wish to maintain

relationships" with the Section. The Secretary was instructed to inform Mr. Van Arsdale that we will be pleased to maintain relationships with the Section, and to outline briefly current activities of the Association.

d. *From Robert A. Hardt*, program chairman of the Pharmaceutical Industry Session of the Industrial Council, held last October at Rensselaer Polytechnic Institute, outlining results of the Session (Appendix A, original copy, these minutes). The report was ordered received, and the Secretary was instructed to express to Mr. Hardt our deep concern over complete exclusion of the AACP from the planning and presenting of this important meeting for teachers in secondary schools, and the almost complete absence of representatives of pharmaceutical education at the Session.

e. *From Eugene H. Holeman*, Chairman, 50th Anniversary Committee, Association of Food and Drug Officials of the United States. This bulletin, one in a long series received during the year from the Association, directs attention to recognition of June 24-30 as Golden Anniversary week of the federal food, drug and cosmetic laws. The Secretary was directed to write a letter of congratulations and good wishes to the President of AFDOUS.

f. *From George A. Bender*, Editor of *Modern Pharmacy*, asking for a brief announcement about availability to member colleges of colored slides of the History of Pharmacy series of pictures. The President was requested to recognize Mr. Bender at the Sunday session for this brief announcement. (See item 8b, these minutes.)

g. *From Robert R. Wilson*, Director, Educational Services Division, Argus Cameras, Inc., advising, "... Argus Cameras, Inc., is planning photographic materials designed specifically for use in Pharmacy Management courses." These materials will be offered gratis to member colleges in the fall, and it is understood projection equipment will also be offered. The Secretary was directed to acknowledge receipt of the letter, with thanks for notification that, "non-commercial material is being carefully planned in co-operation with qualified pharmacy school educators. . . ." (See item 8b, these minutes.)

## **2. Addresses and reports of the officers**

Conforming with current policy, the President, President-Elect, Chairman, and Secretary-Treasurer had communicated earlier among themselves concerning subject matter of their respective presentations in order to avoid undesirable duplication. Each of the officers presented the highlights of his paper to enable screening for statements contrary to established policy, and general ap-

proval was expressed of the manner in which the various topics of the papers were handled. On motion Bliven-Burt, *it was voted* to endorse the address of the President, and on motion Orr-Bowers, *it was voted* to endorse the address of the President-Elect. On motion Hewitt-Christian, *it was voted* to approve the report of the Chairman for transmittal to the Association, and on motion Burt-Christian, *it was voted* to approve the report of the Secretary-Treasurer for 1954-1955 and his interim report for the seven months from August 1, 1955, to February 29, 1956, for transmittal to the Association.

Conforming with current policy, the President and the President-Elect each provided 20 copies of his address for the press, as well as 20 copies of a short summary suitable for use as a press release. These addresses are not distributed at the Annual Meeting. Reports of the Chairman and of the Secretary are distributed, and the Chairman provided in addition 20 copies of a short summary for the press.

To formalize acknowledgments in the papers of all of the officers of support from the American Foundation for Pharmaceutical Education, on motion Bowers-Orr, *it was voted* to instruct the Chairman to introduce a suitable resolution for action by the Association (see 1956 resolution 30).

Past-President Burt requested consideration by the Executive Committee of the principal points in his paper on "Time of Annual Meeting, A Perennial Problem," to be presented Monday afternoon at the Conference of Teachers. Consensus was the data of the paper were accurate and contained the principal items pertinent to the problem.

In connection with assumption of the duties of the presidency, Dean Hewitt reported he had made careful study of prospective committees for 1956-1957 and would be prepared to make committee appointments shortly after his installation as President. He also stated he had prepared an index of the Personnel Roster and would send a copy to each member college. Consensus was the Roster in the future should include an index.

Chairman Zopf reported the present Secretary had asked that he not be considered at the time a nominee is named for this post. The Chairman stated further that orderly and economical transfer of records and other Association property could best be accomplished if the effective date of the installation of the Secretary-Treasurer elected on April 10, 1956, be declared August 1, 1956, and the incumbent continue to discharge the duties of the office until August 1. Consensus was in favor of this arrangement, and the Chairman was instructed to introduce a suitable resolution for



action by the Association (see 1956 resolution 25).

**3. Extracts from correspondence and reports of committees**

The following data from reports of committees and correspondence with the Secretary were discussed either in connection with specific requests referred earlier to committees, special activities of the committees, or implications affecting discussion of item 4, the 1956-1957 budget. Committee on:

a. *Curriculum.* The 1956 report of this Committee refers in its last item to a request from the Executive Committee for study of the problem of improvement in supervision of practical experience requirements (see item 1c, Minutes of the 1955 Annual Meeting of the Executive Committee). Only brief discussion of this problem was possible this year, and the suggestion was made by the Committee on Curriculum to have joint study undertaken by the Committee on Curriculum and the NABP Committee on Practical Experience Requirements or other suitable NABP committee. The Executive Committee approved this suggestion and directed the Secretary to explore with Secretary Costello ways and means of bringing the proper groups of the two organizations together, providing the NABP is receptive to the proposal. A possible time for such meeting might be immediately prior to next year's meetings of the two associations.

The Executive Committee approved budget request to provide for a meeting of the Committee on Curriculum in 1956-1957.

b. *(Council on) Conference of Teachers.* The Secretary outlined experimental procedure to be followed this year by the Council and in the Conference, designed to channel routine business to the Council and to free time in the Conference for scheduling of a Conference-sponsored speaker. In the event the procedure proves to be satisfactory to the Council and to the Conference, a prominent speaker will be invited annually, with expenses borne by the Conference, perhaps on a rotating basis among the Sections.

Request for allotment for operation of the Conference Secretary-Treasurer's office was approved, with the suggestion that the present financial condition of the Sections might well warrant modest allotment from each section to cover these expenses in the future.

c. *Pharmacy College Libraries.* Reference is made to item 23, minutes of the 1955 Interim Meeting of the Executive Committee, in which action favorable to inclusion of pharmacy college librarianship in the next general seminar (1960) is outlined. The Library Committee has agreed to cooperate in this seminar, but also requests permission to seek funds for a separate Seminar for Librarians in 1957, to include colleges and industry and to lay the



groundwork for participation in the 1960 seminar. After considerable discussion, consensus was the original decision on this request should stand and the Association should not seek funds for a separate 1957 seminar for college and industrial pharmacy librarians.

*d. Audio-visual Education.* Reference is made to item 2c, minutes of the 1955 Post-Session Meeting; 1955 resolution 11; and item 19b, minutes of the 1955 Interim Meeting, all concerned with plans for a central film depository. The plan outlined this year by the Committee on Audio-visual Education involved budget appropriation of \$2600 the first year and \$2300 the second year. For action taken see item 4b, Minutes of the 1956 Post-Session Meeting.

*e. Predictive and Achievement Tests.* This Committee recommends development of a battery of predictive tests for pharmacy at an estimated cost of \$35,000. For action taken see item 4c, Minutes of the 1956 Post-Session Meeting.

The Executive Committee approved budget request to provide for a meeting of the Committee on Predictive and Achievement Tests in 1956-1957.

*f. Recruitment Aids.* The Executive Committee was asked for advice on distribution of the films and filmstrip, and they recommended sponsored distribution to high schools and feeder colleges of 50 color prints of *Design for Life* and 50 color prints of *Time for Tomorrow*, and 10 prints of each in black and white for television use. Sale of color prints of the motion pictures by the Association at \$125 each print was also recommended, as was sale of the filmstrip by the Association at \$5 each. These recommendations were subsequently considered by the Committee on Recruitment Aids and were adopted.

To implement the sponsored phase of the distribution policy, the Executive Committee authorized request from the Foundation of an advance on the 1956-1957 grant as needed, up to \$25,000. The Committee on Recruitment Aids will continue to operate within the financial limits of the Foundation grant plus the small income from sale of films, and accounting of the fiscal details of its operation will continue to be made to the Foundation.

*g. Affiliation of Canadian Colleges.* This Committee recommended establishment of a third class of membership, designated "affiliate membership," open at their option to Canadian colleges of pharmacy which meet the minimum standards of the Canadian Conference of Pharmaceutical Faculties, with all privileges and responsibilities of active membership except the right to vote and to hold office, and with annual dues of \$50. The Executive Com-

mittee endorsed this recommendation and instructed the Chairman to initiate the regular procedure whereby the necessary revisions of Article III of the Constitution and Article II of the Bylaws can be voted on at the 1957 Annual Meeting. In this connection, attention is directed to item 19a, Minutes of the 1955 Interim Meeting, where consideration is suggested of wording of qualifications for affiliate membership so as to include colleges of pharmacy outside the continental limits of the United States other than our Canadian colleagues.

The Committee on Affiliation also recommended provision of reciprocal membership in the CCPF for member colleges. The Executive Committee endorsed this recommendation for such action as is desired by the CCPF.

Finally, the Committee on Affiliation recommended free exchange of data among related committees of the two bodies, and provision of formal reciprocal representation at meetings and seminars. Since reports of committees are published regularly, and informal exchange of data among related committees is encouraged and can be increased, no further action pursuant to the recommendation on exchange of data was considered necessary by the Executive Committee, nor was provision for formal reciprocal representation made at this time.

The Executive Committee considered the functions of this special Committee to have been ably fulfilled, and recommended that the incoming President express the thanks of the Association to the Chairman.

*h. Public Relations in Pharmaceutical Education.* In discussing the constructive activities of this Committee during the past two years, attention was directed to the proposed intensive public relations program initiated by the American Drug Manufacturers Association, to include all segments of pharmacy, and contemplating incorporation of the "Health News Institute." After considerable discussion, consensus was the public relations activities of the Association should revert for the time being from the Committee on Public Relations in Pharmaceutical Education to a Subcommittee (of the Executive Committee) on Public Relations, and that the services of this Subcommittee should be offered in development of the program of the Health News Institute.

The Executive Committee suggested the Chairman for the past two years of the Association's Committee on Public Relations be considered in naming members of the new Subcommittee, and that the incoming President express the thanks of the Association for the work of the Committee of the past two years.

*i. Graduate Education in Pharmacy.* For action on the

recommendations from this Committee, see 1956 resolutions 17-21, and item 4, Minutes of the 1956 Post-Session Meeting.

#### **4. Discussion of 1956-1957 budget**

Detailed discussion of next year's budget involved careful consideration of the many regular and special requests from committees, and resulted in agreement on a number of compromises aimed at providing increased amounts for committee activities. In considering the operating budget, the Seminar can be excluded (financed by the Foundation grant), *Shall I Study Pharmacy* can be excluded (self-supporting, but about \$6,000 capital fund must be available), and the recruitment aids program can be excluded (financed by the Foundation grant).

Remaining receipts total approximately \$22,000, and nearly one half of this is required for over-all expenses of the *Journal*. Increased subscriptions anticipated for the *Journal* are believed to be capable of providing modest increase in income, but receipts from these sources are limited. For final action on the budget see item 1, Minutes of the 1956 Post-Session Meeting.

*a. Report of the Editor.* Reference is made to the 1956

#### **5. American Journal of Pharmaceutical Education**

Report of the Editor for statements of policy on sequence in *Journal* contents, acceptance of manuscripts, news section, and review section. The Executive Committee endorsed the agreement reached last fall by the Publication Committee that decisions on editorial policy should be left in the hands of the Editor, who should feel free to consult with the members of the Publication Committee or with any specialists in or out of pharmacy in reaching decisions; and that official action of the Publication Committee would not be called for on routine editorial policy.

The Editor recommended compilation of a cumulative index for volumes 14-20 to provide coverage to date, and the budget appropriation for the *Journal* was established to provide for this second cumulative index to be published in the Fall, 1956, issue. The Editor further recommended that the policy be established of providing decennial cumulative index for each 10 volumes whose last one ends in zero, beginning with volumes 21-30. On motion Gibson-Burt, it was voted to establish this policy.

The Chairman and all members of the Executive Committee commended the Editor on the Winter, 1956, issue as well as the forward-looking program he outlined for continued improvement in the *Journal*.

*b. Report of the Business Manager.* The Secretary reported on the procedure followed for revision of the distribution

list, and on results of the extensive mailing of late February designed to increase paid subscriptions, especially from personnel in member colleges. Following this mailing, 84 new subscriptions were received, with 70 of these from teachers. This is encouraging, but we still have only 191 subscriptions from our 933 teachers in professional areas. The Secretary was authorized to send a second letter in early May to non-subscribers in member colleges, pharmacy librarians in industry, and secretaries of state boards outlining plans for the remaining issues of volume 20 and offering to send an examination copy.

About one half of the new subscriptions are three-year ones. Consensus was, despite this fact, the volume of subscriptions did not warrant introducing a deferred income item in the budget.

c. *Journal contract for 1957 and later.* Chairman Zopf asked if the Executive Committee considered it necessary to advertise annually for bids on the *Journal* printing contract. Consensus was, in the light of bids received last fall, the present contract is as favorable as can be obtained, and is certainly the most workable one for the present Editor. On motion Deno-Hewitt, *it was voted* not to reopen bids on the *Journal* printing contract annually, but to renew the contract with the W.S.C. Press annually unless good reason develops for altering this policy.

#### **6. Reports of representatives to district meetings**

Reference is made to item 24, minutes of the 1955 Interim Meeting, on reports of representatives to districts 2, 3, 5, 7, and 8. Reports by representatives to the following three district meetings held since November were made.

- a. District 1; March 5-6; Hartford, Connecticut; President Tice.
- b. District 4; March 10-12; Toledo, Ohio; President-Elect Hewitt.
- c. District 6; February 6-7; Austin, Texas, Secretary Deno.

Resolutions from the district meetings are outlined in the 1956 report of the Committee on Relationships of Boards and Colleges, and those acted on by the Association are 1956 resolutions 1-3.

The Executive Committee also discussed 1948 resolution 14, approving student representatives being invited to attend district meetings, and considered advisability of this practice to be a moot point. Consensus was decision on this practice should be left to the districts individually, without endorsement by the Association, and the Association should be asked to rescind 1948 resolution 14 (see 1956 resolution 27).

Dean Orr introduced for discussion the proposal pending to organize district meetings of the A.Ph.A., with geographical range of the districts probably to be the same as the districts of boards and colleges. Suggestions have been made, in the event the A.Ph.A. districts are organized, to combine A.Ph.A. district meetings with those of the boards and colleges. This possibility was discussed, and sentiment of the Executive Committee appeared to be against such extension of the scope of our district meetings.

#### **7. Teachers' Seminar for 1956**

Chairman Zopf reported on the February 8 meeting of the 1956 Committee on Seminar, held in Austin, and stated the faculty appointments have been completed and preliminary notices sent out. He also reported that the provisos of 1955 resolution 8 would be met in so far as attendance at all sessions by all our members was concerned, and that provisions for housing all members had been made.

#### **8. Special reports**

*a. Pan-American Congress.* President Tice reported on a December meeting of representatives of organizations in the Drug Trade Conference on the Fourth Pan-American Congress of Pharmacy and Biochemistry to be held in Washington, D.C., in the fall of 1957. An Organizing Committee is planned, representing all specialties in American pharmacy, and from this group, a smaller Executive Committee will be named. Robert Hardt has been named Chairman of the Organizing Committee. The Congress will probably convene for eight days, with attendance of 1,000-2,000, or more. Early participation by the Association in plans for the Congress was urged, and consensus was the Executive Committee should function in this respect for the Association, with President-Elect Hewitt serving as coordinator and principal liaison officer. Dean Hewitt indicated he would promptly so inform Mr. Hardt, offering the services of the Executive Committee.

*b. Pepsodent Presidential Scholarships.* Reference is made to item 17, minutes of the 1955 Interim Meeting, wherein the Executive Committee expresses disapproval of certain features of these Scholarships. President Tice summarized exchange of correspondence and personal conferences with representatives of the Pepsodent Division, Lever Brothers Company, which resulted in marked reduction in the objectionable ceremonial and publicity features of the program. It was agreed no further action is indicated on this matter by the Executive Committee or by the Association.

With reference to this matter and to items 1f and 1g, these

minutes, note was taken of apparent growing interest among business concerns and trade groups in sponsoring company-identifiable scholarships, awards, prizes, and teaching aids on a national basis, of such nature that the aid is available to or for use in all member colleges. Note was also taken of the effect provision of such aids may have on significant contribution to the Foundation. It was agreed study of this problem should be made in an attempt to develop a diplomatic policy, perhaps including an offer of advisory service where such aids are planned. On motion Hewitt-Burt, *it was voted* to instruct the Chairman to appoint a subcommittee (of the Executive Committee) on Awards and Aids whose function will be to study this problem and report to the Executive Committee at the 1956 Interim Meeting.

c. *Programs in hospital pharmacy.* The Chairman referred to item 1f, minutes of the 1955 Interim Meeting, and to item 1i, minutes of the 1955 Annual Meeting of the Executive Committee, in which desire of the Association for official representation on the Policy Committee, Division of Hospital Pharmacy is expressed. No action has been taken thus far on request for such representation, and continued interest in this matter was voiced. The 1956 program of the Section of Graduate Instruction is to consist of a symposium on Training and Internship in Hospital Pharmacy. For action regarding hospital pharmacy originating at this Section meeting see 1956 resolution 14.

d. *Revision of forms.* Reference is made to item 14, minutes of the 1955 Interim Meeting, which describes appointment of a Subcommittee to study revision of the forms now in use for collection annually of enrollment and other data from member colleges. The Chairman summarized correspondence among members of the Subcommittee (Burt, Deno, Zopf), and presented for criticism the current forms. It was agreed that request for details on advanced credit and on admission by examination or certification could probably be eliminated. The Chairman was requested to indicate on the forms these and other suggested changes; to transmit the tentative revisions to members of the Executive Committee for criticism and vote; and once agreement has been reached on the revisions to be recommended, to advise the Chairman of the Committee on Constitution and Bylaws of any changes required in Article 18 of the Bylaws early enough to provide for submission of revised wording through channels for action by the Association at the 1957 Annual Meeting.

Collection of numerical data on graduate students was discussed, and consensus was these data would probably be more useful if published as a part of the annual summary of Graduate Study



in Member Colleges prepared by the Committee on Recruitment Aids. It was agreed the Committee on Recruitment Aids would be asked to collect and add these statistical data to their summary and that the data would not be asked for by the Chairman.

*e. Salary survey.* The Secretary reported on collection of data, as directed, see item 15, Minutes of 1955 Interim Meeting. A report was mailed only to each member of the Executive Committee, the dean of each member college, and the Secretaries of the ACPE and the AFPE. The questionnaire forms were returned to the deans respectively, and no record has been retained other than the final report. Two requests from deans of member colleges have been received for repetition of this streamlined procedure and report annually. After discussion, the Executive Committee directed that the Secretary in the fall of 1956 repeat the survey and distribute the report as was done this year.

*f. Policy code.* Pursuant to instructions outlined in item 26, Minutes of the 1955 Interim Meeting, the Secretary in February tabulated and classified statements of policy applicable today and not of such nature as to be widespread common knowledge, and submitted a first draft to members of the Executive Committee by mail on March 1 (Appendix B, original copy, these minutes). Statements were included from:

- The Constitution and Bylaws
- Conference of Teachers Bylaws
- Resolutions approved by the Association
- Executive Committee minutes
- Officers' Manual
- Committee on Committees Report
- Tradition

The Executive Committee carefully considered the first draft with the following results:

*Awards.* Opinion outlined in item 16, Minutes of the 1955 Annual Meeting of the Executive Committee, was reiterated, with special reference to awards proposed by a second committee of the Association. On motion Burt-Bliven, it was voted to adopt as a policy of the Executive Committee disapproval of use of Association funds for awards and prizes. This action does not affect the award by the Committee on Audio-visual Education for 1957 or 1958 (see 1955 resolution 9).

*Audit for Conference of Teachers.* Policy has been to direct the "same audit as applies to other funds." This policy has never been carried out because records and funds

for the Conference are not in the hands of the Secretary-Treasurer of the Association. Instead, the Secretary-Treasurer of the Conference has annually transmitted certified report which has been accepted by the Executive Committee. On motion Deno-Orr, *it was voted* to rescind the earlier requirement and authorize acceptance of certified report from the Secretary-Treasurer of the Conference of Teachers.

*Stenographic help.* Careful review of requirements of the Secretary-Treasurer, Chairman, and Editor led to adoption of a policy to provide half-time to full-time stenographer for the Secretary-Treasurer as required by the duties of his office; about one-eighth time help for the Chairman; and about one-fourth time help for the Editor.

*Memorial statements.* See 1956 resolution 28.

*Questionnaires.* Desirability of transmittal of forms in duplicate was emphasized, was adopted as a policy, and the Secretary was directed to so inform chairmen of committees annually.

*Graduate enrollment.* See item 8d, these minutes.

*Student representatives to district meetings.* See 1956 resolution 27.

*Seminar proceedings.* Consensus was the Chairman of the Seminar Committee should be instructed to mail one copy to the dean of each member college, one copy to the library of each member college, one copy to each seminarian, 100 copies to the Secretary-Treasurer for sale at \$1 each postpaid; and should place order for Proceedings at the figure which will provide for this distribution rounded off to the next higher number evenly divisible by 50.

On motion Bliven-Burt, *it was voted* to approve the Policy Code as revised; and to direct the Secretary to prepare 25 copies, to be numbered, and one copy to be furnished each member of the Executive Committee and the Editors, with the remainder a reserve to be retained by the Secretary for transmittal in subsequent years to newly elected members of the Executive Committee.

#### **9. Request for grants from the AFPE, 1956-1957**

On motion Burt-Orr, *it was voted* to authorize request by the Secretary for grants in the amount of \$5,000 in support of the *Journal* and \$7,000 in support of the Seminar for the next fiscal year.

**10. Pharmacy manpower replacement figures**

Dean Bliven directed attention to the currently quoted replacement figure for pharmacists, 3.5 per cent, and its relationship to the flood of students expected, the Association recruitment program, and the inauguration of the extended program. Desirability of re-examination of data leading to possible revision of this figure was recognized, but no action respecting this problem was taken.

**11. Preliminary report on credentials**

Chairman Zopf had previously appointed Dean Orr Chairman of the Credentials Committee, and credentials were reported in order for 73 member colleges (see Summary of 1956 Annual Meeting).

**12. Termination of service on Executive Committee**

The Chairman expressed appreciation for the services rendered by Past-President Burt, Secretary Deno, Editor Gibson, Dean Bowers, and Professor Christian during their tenure as members of the Executive Committee.

This Annual Meeting occupied the morning and afternoon of April 6, and the morning of April 7. The meeting adjourned at 12:30 P.M., April 7.

Respectfully submitted  
*R. A. Deno, Secretary*

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*Let us stop blaming an ancient and honorable calling we can be proud of for things that should not and need not be.*

John F. McCloskey, *Am. J. Pharm. Ed.*, 6, 121 (1942)

## MINUTES OF THE POST-SESSION MEETING

Statler Hotel, Detroit, Michigan

April 11, 1956

Chairman Zopf called the meeting to order at 9:10 A.M.

Present: Members Bliven, Deno, Harris, Hewitt, Orr, Rowe, Sprowls, Tice, Zopf, Secretary Webster, and Editors Gibson and Lyman.

The Chairman welcomed the four recently elected members: Professors Harris and Webster, and Deans Rowe and Sprowls. He outlined the procedures followed in meetings of the Committee, and urged the new members to participate freely in discussions. The following agenda was then considered.

### 1. Adoption of 1956-1957 budget

Reference is made to item 4, minutes of the 1956 Annual Meeting of the Executive Committee. In view of increased requests for funds by committees, current policy on representation at district meetings by officers only, none to serve in his own district, was re-examined with the objective of reduction in size of this item of the budget. On motion Tice-Hewitt, *it was voted* to extend official representation at district meetings to all members of the Executive Committee, to authorize representation by a member within that member's own district where this can be accomplished without cost to the Association, to request the Chairman to furnish outline to all representatives of principal topics to be presented each year, and to favor representation by an officer in all cases where this is economically feasible.

Respecting size of the Committee on Curriculum, it was decided to limit this to six members, and the President was requested to bear in mind need for representation for pharmacology, the other areas being represented by members with continuing terms.

In discussing provision for a meeting of the newly constituted Committee on Hospital Pharmacy Education (see 1956 resolution 14), the President was requested to consider desirability of one or two appointments from the Committee on Curriculum; as well as suggestion of a concurrent meeting of the two committees, with perhaps one joint session.

On motion Hewitt-Orr, *it was voted* to adopt the budget as adjusted in the light of these considerations (Appendix A, original copy, these minutes).

### 2. Time of future meetings

a. *Annual.* Consideration of the Conference of Teachers discussion of time of annual meeting led to agreement that a significant number, perhaps a majority, of our representatives favor

a summer annual meeting of the Association. Also evident to members of the Executive Committee is strong sentiment among our representatives for continued adherence to the policy expressed in Article IX of the Constitution, to meet at the same time and place as does the A.Ph.A. Resolution of the dilemma is proposed through change of time by the A.Ph.A. (see 1956 resolution 16). This proposal has been transmitted to the A.Ph.A. by our delegate. It is frankly recognized that prospect of change is not good. Time and place is already set for 1957, week of April 28, New York City; and for 1960, week preceding the USP Convention (which the USP Constitution sets as the second Tuesday in April but which can be changed by the Board of Trustees), Atlantic City.

After further discussion, on motion Tice-Orr, *it was voted* to meet at the same place and coincident with the annual meeting of the A.Ph.A. for 1957-1960.

*b. Interim.* With the 1957 Annual Meeting settled for April 28-30, a logical and practical time for the Interim Meeting of the Executive Committee is next October. Desirability of so timing this meeting as to permit a Joint Meeting with the ACPE was discussed (see item 8, minutes of 1955 Interim Meeting). Secretary Webster was requested to confer with Secretary Costello to find out if an early December meeting of the Council in Chicago could be arranged for 1956. In the event this can be done, the next Interim Meeting will be scheduled for the same time and place. If an acceptable time for a Joint Meeting cannot be arranged this year, the Chairman will negotiate next fall with the other members on time and place.

### 3. Delegates and representatives

*a. To ACE.* Consensus was that Secretary Webster should be appointed delegate to the ACE, vice Hugh C. Muldoon. For 1956-1957, status of the delegates was agreed to be: Karl L. Kaufman, Voting Delegate; Francis J. O'Brien, First Alternate; Richard A. Deno, Second Alternate; and George L. Webster, Voting Delegate; Charles W. Bliven, First Alternate; Joseph B. Sprowls, Second Alternate. The two representatives, therefore, normally expected to represent the Association at the fall meeting of the ACE in Chicago, are Secretary Webster and Dean Kaufman. It was further agreed not to send representatives this year to special meetings of the ACE unless specifically authorized by the Chairman.

*b. To ACPE.* On motion Tice-Rowe, *it was voted* to elect Joseph B. Burt representative to the ACPE, 1962, vice B. V. Christensen, 1956.

c. *To NDTC.* Consensus was that Roy A. Bowers should be reappointed representative to the NDTC, 1959, to succeed himself.

d. *To NARD.* It was agreed to appoint Richard A. Deno representative to the NARD for a one-year term.

e. *To district meetings.* In the light of decisions reported in item 1, these minutes, the following representatives to district meetings were agreed on:

1. Boston, time undecided, Hewitt
2. Atlantic City, November 4-6, Bliven
3. Pensacola, August 20-21, Rowe
4. Chicago, early 1957, Rowe
5. Fargo, October 7-8, Zopf
6. Little Rock, March 11-12, Webster
7. Missoula, October 25-26, Orr
8. Las Vegas, October 4-6, Zopf

**4. Resolutions, 1956, referred to the Executive Committee**

a. *Number 2*, on further study of requirement of letter of recommendation for transfer students. Deferred until 1956 Interim Meeting.

b. *Number 4*, on establishing a film depository. Not provided for in 1956-1957 budget, and further study deferred until 1956 Interim Meeting.

c. *Number 5*, on development of predictive tests for pharmacy. Not provided for in 1956-1957 budget, and further study deferred until 1956 Interim Meeting.

d. *Number 9*, on representation at annual convention of NARD. See item 3d, these minutes.

e. *Number 12*, on representation in proposed national public relations program for pharmacy. See item 3h, Minutes of 1956 Annual Meeting.

f. *Number 13*, on Pan-American Congress. See item 8a, Minutes of 1956 Annual Meeting.

g. *Number 15*, on pilot study of instruction in the professional courses of the extended program. Deferred until 1956 Interim Meeting.

h. *Number 17*, on survey of current graduate programs. Deferred until 1956 Interim Meeting.

i. *Number 18*, on publication of data on faculties, publications, and doctoral theses in pharmacy graduate programs. The opinion was expressed that such a publication, while desirable, was in the class of "luxury items." On motion Hewitt-Webster, *it was voted* not to allocate funds for this publication.



j. *Number 20*, on establishment of a panel of graduate study advisory consultants. After discussion, on motion Sprowls-Rowe, *it was voted* to instruct the Chairman of the Executive Committee to establish a Graduate Study Advisory Panel; to formalize their role so as clearly to indicate no endorsement by the Association of a specific graduate program, planned or in operation, is implied; and to make clear that expenses of advisory consultants are to be borne by colleges requesting the services. Such details as size and membership, selection by the colleges requesting the service of consultants from names suggested by the Chairman of the Executive Committee, etc., were deferred until the Interim Meeting.

k. *Number 31*, on opposition to sale in drugstores of alcoholic beverages for non-medicinal use. This resolution was introduced from the floor, and the chair ruled that the Association directed action on the spot rather than by referral to the Committee on Resolutions. After discussion of the position expressed by the Association, the Executive Committee directed the Secretary to send a copy of the resolution to the Secretary of each national association in pharmacy, each state board of pharmacy, and each state pharmaceutical association.

#### 5. Fiscal resolutions and policy

Looking toward transfer of funds of the Association on August 1 as implied by 1956 resolution 25, on motion Sprowls-Bliven, *it was voted* to approve resolution certifying names of officers elected on April 10, 1956 (Appendix B, original copy, these minutes), and resolution giving authority to open account to the newly elected Secretary-Treasurer (Appendix C, original copy, these minutes). The Executive Committee also directed the current Secretary-Treasurer to arrange for commercial audit after August 1, 1956, of the books of the Association for 1955-1956 and to cancel fidelity bond held by the Association on him as of the date of transfer of AACP assets to the newly elected Secretary-Treasurer; the newly elected Secretary-Treasurer to obtain fidelity bond in the amount of \$10,000 on himself in the name of the Association effective August 1, 1956; and the Chairman to renew his fidelity bond as of noon, November 19, 1956, when the current one expires.

The meeting adjourned at 12:40 P.M.

Respectfully submitted,  
R. A. Deno, Secretary

## MISCELLANEOUS DATA

### SUMMARY OF FIFTY-SEVENTH ANNUAL MEETING

The Executive Committee has instructed the Secretary to prepare a summary of the Annual Meeting for publication in the proceedings issue of the *Journal*. The object of the summary is to provide a permanent record of various details that are not included in routinely published accounts of activities at an Annual Meeting. The summary, therefore, does not include reference to reports of committees, resolutions, officers elected, committees appointed, or to other material to be found elsewhere in the proceedings issue of the *Journal*.

The Fifty-Seventh Annual Meeting of the Association was held at the Statler Hotel in Detroit, Michigan, on April 8, 9, and 10. It was preceded by the Annual Meeting of the Executive Committee and was followed by the Committee's Post-Session Meeting.

Four general sessions were held, on Sunday and Monday afternoons and on Tuesday morning and afternoon. A total number of delegates and representatives of 272 was reported on the roster forms. In addition 15 Canadian colleagues and two representatives from foreign colleges of pharmacy were present.

The Sections of Teachers held sessions on Sunday evening (Graduate Instruction) and on Monday morning. The joint dinner with the National Association of Boards of Pharmacy which was held on Monday evening, was addressed by Harlan Hatcher, President of the University of Michigan, and was attended by nearly 300 persons. Dr. Rufus A. Lyman was presented a plaque bearing the following inscription: "May 3, 1955, Honorary Membership, American Association of Colleges of Pharmacy conferred on Rufus A. Lyman, Educator-Scientist-Journalist, Founder and Editor of *The American Journal of Pharmaceutical Education*, 'Lyman's Journal'." He received a standing ovation by those attending. The first public showing of the Association-Foundation sponsored films, *Design for Life* and *Time for Tomorrow*, after the dinner attracted about 600 persons. Also well attended was an open meeting of the Committee on Continuation Studies, held on Sunday morning.

President Tice recognized two colleagues who have accepted deanships during the past year: Dean John G. Adams of Duquesne University and Dean Clifton E. Miller of North Dakota Agricultural College. He recognized three deans-elect: Dr. Lloyd M. Parks of the Ohio State University, Dr. Warren E. Weaver of the Medical College of Virginia, and Dr. Arthur G. Zupko of the Brooklyn College of Pharmacy.

The President announced election of Dean Hugo H. Schaefer as President of the National Drug Trade Conference. President John B. Heinz of the American Pharmaceutical Association was introduced and presented greetings. Dean Tice also presented Dr. Edward C. Elliott, Director of the Pharmaceutical Survey, and Mr. George Bender of Parke, Davis and Com-

pany, who announced availability to the colleges of colored slides of the series of historical pictures recently completed.

Chairmen of committees whose functions are associated mainly with the Annual Meeting were: Auditing, Dean Stephen Wilson; Credentials, Dean Jack E. Orr; Nominations, Dr. Donald C. Brodie; and Resolutions, Dean L. David Hiner.

In Memoriam statements for deceased were presented by nine colleges, and note was taken of the deaths of four other teachers in member colleges.

An address on "Pharmacy in University Education for the Health Sciences," by Dean George T. Harrell, College of Medicine of the J. Hillis Miller Health Center, University of Florida, was well received by an appreciative audience. President-Elect Harold G. Hewitt served as moderator of an excellent panel presentation of "Problems of Admission from Pre-pharmaceutical Programs." General statement of the problems was made by Dr. Lloyd E. Blauch, Assistant Commissioner of Higher Education, Office of Education; Dr. Loyd E. Harris and Dean Joseph B. Sprowls represented pharmacy in the panel presentation. President William N. Atkinson, Jackson Junior College, spoke encouragingly from the point of view of the administrator in a feeder college.

The Conference of Teachers followed a streamlined procedure this year whereby time was made available on their program for a conference-sponsored speaker. Dean Joseph B. Burt spoke on "Time of Annual Meeting, a Perennial Problem." This was followed by vigorous discussion of spring or summer meetings.

The Association voted in favor of revision of Article VIII of the Constitution resulting in reduction in size of the Executive Committee to nine members through elimination of the Editor as a member *ex officio*. A proposal to revise statements in the Bylaws on degree requirements was referred back to the Executive Committee for further study. The Association representative in the House of Delegates of the American Pharmaceutical Association was instructed to oppose change in the current practice of ballot by mail for A.Ph.A. officers in the event proposal for such change is introduced.

R. A. Deno, Secretary

## INSTITUTIONS HOLDING MEMBERSHIP IN THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

### ALABAMA

School of Pharmacy  
Alabama Polytechnic Institute (1905)\*  
Auburn  
Dean Lynn S. Blake

Division of Pharmacy  
Howard College (1952)  
7725 Second Avenue South  
Birmingham 6  
Director Woodrow R. Byrum

### ARIZONA

College of Pharmacy  
University of Arizona (1952)  
Tucson 11  
Dean Willis R. Brewer

### ARKANSAS

School of Pharmacy  
University of Arkansas (1952)  
16th and Lewis Streets  
Little Rock  
Dean Stanley G. Mittelstaedt

### CALIFORNIA

School of Pharmacy  
University of California (1942)  
The Medical Center  
San Francisco 22  
Dean Troy C. Daniels

School of Pharmacy  
University of Southern California  
(1918)  
3518 University Avenue  
Los Angeles 7  
Dean Alvah G. Hall

**COLORADO**

College of Pharmacy  
University of Colorado (1921)  
Boulder  
Dean Curtis H. Waldon

**CONNECTICUT**

School of Pharmacy  
University of Connecticut (1935)  
Storrs  
Dean Harold G. Hewitt

**DISTRICT OF COLUMBIA**

School of Pharmacy  
George Washington University (1900)  
2128 H Street N.W.  
Washington 6  
Dean Charles W. Bliven

College of Pharmacy  
Howard University (1926)  
500 W Street Northwest  
Washington 1  
Dean Chauncey I. Cooper

**FLORIDA**

School of Pharmacy  
Florida Agricultural and Mechanical  
College (1954)  
Tallahassee  
Dean Howard McClain, Jr.

College of Pharmacy  
University of Florida (1925)  
Gainesville  
Dean Perry A. Foote

**GEORGIA**

Southern College of Pharmacy, Inc.  
(1948)  
223 Walton Street N.W.  
Atlanta 3  
Dean Melvin A. Chambers

School of Pharmacy  
University of Georgia (1928)  
Athens  
Dean Kenneth L. Waters

**IDAHO**

College of Pharmacy  
Idaho State College (1927)  
Pocatello  
Acting-Dean Laurence E. Gale

**ILLINOIS**

College of Pharmacy  
University of Illinois (1900)  
833 South Wood Street  
Chicago 12  
Dean Earl R. Series

**INDIANA**

College of Pharmacy  
Butler University (1927)  
Indianapolis 7  
Dean Karl L. Kaufman

School of Pharmacy  
Purdue University (1901)  
Lafayette  
Dean Glenn L. Jenkins

**IOWA**

College of Pharmacy  
Drake University (1942)  
Des Moines 11  
Dean Byrl E. Benton

College of Pharmacy  
State University of Iowa (1901)  
Iowa City  
Dean Louis C. Zopf

**KANSAS**

School of Pharmacy  
University of Kansas (1900)  
Lawrence  
Dean J. Allen Reese

**KENTUCKY**

College of Pharmacy  
University of Kentucky (1900)  
104 West Chestnut Street  
Louisville 2  
Dean Earl P. Slone

**LOUISIANA**

New Orleans College of Pharmacy  
Loyola University (1921)  
6363 St. Charles Avenue  
New Orleans 18  
Dean John F. McCloskey

College of Pharmacy  
Xavier University (1923)  
Washington and Pine Streets  
New Orleans 18  
Dean Lawrence F. Ferring

**MARYLAND**

School of Pharmacy  
University of Maryland (1900)  
32 South Greene Street  
Baltimore 1  
Dean Noel E. Foss

**MASSACHUSETTS**

Massachusetts College of Pharmacy  
(1900)  
179 Longwood Avenue  
Boston 15  
Dean Howard C. Newton

New England College of Pharmacy  
(1952)  
70-72 Mount Vernon Street  
Boston 8  
Dean Constantine N. Meriano

**MICHIGAN**

College of Pharmacy  
Detroit Institute of Technology (1923)  
2020 Witherell Street  
Detroit 26  
(New dean to be chosen)

College of Pharmacy  
Ferris Institute (1938)  
Big Rapids  
(New dean to be chosen)

College of Pharmacy  
University of Michigan (1900)  
Ann Arbor  
Dean Tom D. Rowe

College of Pharmacy  
Wayne University (1925)  
4841 Cass Avenue  
Detroit 1  
Dean Stephen Wilson

**MINNESOTA**

College of Pharmacy  
University of Minnesota (1901)  
Minneapolis 14  
Dean Charles H. Rogers

# MISSISSIPPI

School of Pharmacy  
University of Mississippi (1913)  
University  
Dean Elmer L. Hammond

# MISSOURI

St. Louis College of Pharmacy and  
Allied Sciences (1900)  
4588 Parkview Place  
St. Louis 10  
Dean Arthur F. Schlichting

School of Pharmacy  
University of Kansas City (1948)  
5100 Rockhill Road  
Kansas City 10  
Dean Leslie L. Eisenbrandt

# MONTANA

School of Pharmacy  
Montana State University (1917)  
Missoula  
(New dean to be chosen)

# NEBRASKA

College of Pharmacy  
Creighton University (1916)  
Fourteenth and Davenport Streets  
Omaha 2  
Dean William A. Jarrett

College of Pharmacy  
University of Nebraska (1913)  
Lincoln 8  
Dean Joseph B. Burt

# NEW JERSEY

College of Pharmacy  
Rutgers University (1923)  
The State University of New Jersey  
1 Lincoln Avenue  
Newark 4  
Dean Roy A. Bowers

# NEW MEXICO

College of Pharmacy  
University of New Mexico (1952)  
Albuquerque  
Dean Elmon L. Cataline

# NEW YORK

College of Pharmacy of the City of  
New York  
Columbia University (1939)  
113-119 West 68th Street  
New York 23  
Dean E. Emerson Leuallen

College of Pharmacy  
Fordham University (1939)  
New York 58  
Dean Albert J. Sica

Brooklyn College of Pharmacy  
Long Island University (1939)  
600 Lafayette Avenue  
Brooklyn 16  
Dean Arthur G. Zupko

College of Pharmacy  
St. John's University (1951)  
96 Schermerhorn Street  
Brooklyn  
Dean Andrew J. Bartilucci

Albany College of Pharmacy  
Union University (1945)  
106 New Scotland Avenue  
Albany 3  
Dean Francis J. O'Brien

School of Pharmacy  
University of Buffalo (1939)  
Buffalo 14  
Dean Daniel H. Murray

# NORTH CAROLINA

School of Pharmacy  
University of North Carolina (1917)  
Chapel Hill  
Dean Edward A. Brecht

# NORTH DAKOTA

School of Pharmacy  
North Dakota Agricultural College  
(1922)  
Fargo  
Dean Clifton E. Miller

# OHIO

College of Pharmacy  
Ohio Northern University (1925)  
Ada  
Dean Albert C. Smith

College of Pharmacy  
Ohio State University (1900)  
Columbus 10  
Dean Lloyd M. Parks

College of Pharmacy  
University of Cincinnati (1947)  
Cincinnati 21  
Dean Joseph F. Kowalewski

College of Pharmacy  
University of Toledo (1941)  
2801 West Bancroft Street  
Toledo 6  
Dean Charles H. Larwood

# OKLAHOMA

School of Pharmacy  
Southwestern State College (1951)  
Weatherford  
Dean W. D. Strother

School of Pharmacy  
University of Oklahoma (1905)  
Norman  
Dean Ralph W. Clark

# OREGON

School of Pharmacy  
Oregon State College (1915)  
Corvallis  
Dean George E. Crossen

# PENNSYLVANIA

School of Pharmacy  
Duquesne University (1927)  
901 Vickroy Street  
Pittsburgh 19  
Dean John G. Adams

Philadelphia College of Pharmacy and  
Science (1900)  
43rd St., Kingsessing & Woodlawn  
Aves.  
Philadelphia 4  
Dean Ivor Griffith

School of Pharmacy  
Temple University (1928)  
3223 North Broad Street  
Philadelphia 40  
Dean Joseph B. Sprowls

School of Pharmacy  
University of Pittsburgh (1900)  
1431 Boulevard of the Allies  
Pittsburgh 19  
Dean Edward C. Reif

**PHILIPPINES**

College of Pharmacy  
University of the Philippines (1917)  
Quezon City  
Dean Patrocinio Valenzuela

**PUERTO RICO**

College of Pharmacy  
University of Puerto Rico (1926)  
Rio Piedras  
Dean Luis Torres-Diaz

**RHODE ISLAND**

Rhode Island College of Pharmacy and  
Allied Sciences (1926)  
235 Benefit Street  
Providence  
(New dean to be chosen)

**SOUTH CAROLINA**

School of Pharmacy  
Medical College of South Carolina  
(1940)

16 Lucas Street  
Charleston 16  
Dean William A. Prout

School of Pharmacy  
University of South Carolina (1928)  
Columbia 19  
Acting-Dean Robert W. Morrison

**SOUTH DAKOTA**

Division of Pharmacy  
South Dakota State College of Agri-  
culture and Mechanic Arts (1908)  
Brookings  
Dean Floyd J. LeBlanc

**TENNESSEE**

School of Pharmacy  
University of Tennessee (1914)  
874 Union Avenue  
Memphis 3  
Dean Karl J. Goldner

**TEXAS**

School of Pharmacy  
Texas Southern University (1952)  
3201 Wheeler Street  
Houston 4  
Dean Hurd M. Jones, Jr.

\* Denotes year institution was admitted to the Association.

College of Pharmacy  
University of Houston (1952)  
3801 Cullen Boulevard  
Houston 4  
Dean Noel M. Ferguson

College of Pharmacy  
University of Texas (1926)  
Austin 12  
Dean Henry M. Burlage

**UTAH**

College of Pharmacy  
University of Utah (1951)  
Salt Lake City 1  
Dean L. David Hiner

**VIRGINIA**

School of Pharmacy  
Medical College of Virginia (1908)  
Richmond 19  
Dean Warren E. Weaver

**WASHINGTON**

School of Pharmacy  
State College of Washington (1912)  
Pullman  
Dean Haakon Bang

College of Pharmacy  
University of Washington (1903)  
Seattle 5  
Dean Jack E. Orr

**WEST VIRGINIA**

College of Pharmacy  
West Virginia University (1920)  
Morgantown  
Dean J. Lester Hayman

**WISCONSIN**

School of Pharmacy  
University of Wisconsin (1900)  
Madison 6  
Dean Arthur H. Uhl

**WYOMING**

College of Pharmacy  
University of Wyoming (1951)  
Laramie  
Dean David W. O'Day

## COMMITTEE APPOINTMENTS AND OTHER INFORMATION, AACP, 1956-57

### STANDING COMMITTEES

- Committee on Constitution and Bylaws**  
Jack E. Orr, 1957, Chairman; Joseph B. Burt, 1959; Elmer L. Ham-  
mond, 1958.
- Committee on Curriculum**  
Lloyd M. Parks, 1957, Chairman; John G. Adams, 1959; William E.  
Hassan, Jr., 1958; Alfred N. Martin, Jr., 1957; Paul C. Olsen, 1957;  
Varro E. Tyler, Jr., 1958.
- Committee on Educational and Membership Standards**  
Glen J. Sperandio, 1958, Chairman; Harold M. Real, 1959; Chauncey  
I. Cooper, 1957; Henry Eisen, 1959; Lyman D. Fonda, 1957; Tom D.  
Rowe, 1958.

**4. Committee on Relationships of Boards and Colleges**

Francis J. O'Brien, 1957, Chairman.

Other members are the eight secretaries listed for the Districts of Boards and Colleges.

**5. Council on Conference of Teachers**

Ewart A. Swinyard, 1957, Chairman; E. E. Leuallen, 1958, Vice-Chairman; Edward P. Claus, 1957, Secretary-Treasurer; Paul J. Jannke, 1957; Ralph J. Mill, 1958; George F. Reddish, 1957; Perry A. Foote, 1957.

**6. Joint Committee on Pharmacy College Libraries**

George E. Osborne, 1957, Chairman; James R. Weeks, 1958; Elizabeth W. Johnson, MLA, 1957; Clara Robeson, MLA, 1958; Mildred P. Clark, SLA, 1958; Irene Strieby, SLA, 1957.

**CONTINUING COMMITTEES**

**1. Committee on Audio-visual Education**

Heber W. Youngken, Jr., Chairman; Martin Barr; Nicholas W. Fenney; Esther J. W. Hall; Albert L. Picchioni; Ralph F. Voigt.

**2. Committee on Civil Defense Education**

Noel E. Foss, Chairman; Robert P. Fischelis; Leonard J. Piccoli; William W. Stiles.

**3. Committee on Future Enrollment Problems**

L. David Hiner, Chairman; G. L. Webster; Stephen Wilson.

**4. Committee on Graduate Programs**

John E. Christian, Chairman; Melvin W. Green; John W. Nelson.

**5. Committee on Predictive Tests**

Joseph B. Sprowls, Chairman; Edward A. Brecht; Willis R. Brewer; Karl L. Kaufman; James A. Kearns; John F. McCloskey.

**6. Committee on Problems and Plans**

Rufus A. Lyman, Chairman; Kenneth E. Avis; Edward S. Brady; V. Jean Brown; Raymond N. Castle; Roy C. Darlington; Dwight L. Deardorff; James M. Dille; Melvin R. Gibson; C. Boyd Granberg; Takeru Higuchi; Raymond E. Hopponen; James A. Kearns; Theodore O. King; Joseph LaRocca; Robert M. Leonard; J. Leon Lichtin; Louis Molspeis; Alfred N. Martin, Jr.; Milton L. Neuroth; Maynard W. Quimby; Claude M. Reed; Morton J. Rodman; William J. Sheffield; Taito Soine; Robert C. Stokes; Raymond W. VanderWyk; W. R. Williams; John E. Wintter; Joseph A. Zapotocky.

**7. Committee on Recruitment Aids**

Richard A. Deno, Chairman; Donald C. Brodie; Charles D. Doerr; Lloyd M. Parks; Louis C. Zopf.

**8. Committee on Status of Pharmacists in the Government Service**

Robert L. VanHorne, Chairman; Loyd E. Harris; Pierre F. Smith.

**SPECIAL COMMITTEES**

**1. Committee on Continuation Studies**

Roy A. Bowers, Chairman; William S. Apple, Charles S. Haupt, Kenneth L. Waters.

**2. Committee on Hospital Pharmacy Education**

Tom D. Rowe, Chairman; William E. Hassan, William M. Heller, Donald M. Skauen; John J. Zugich.



**REPRESENTATIVES, DELEGATES AND DIRECTORS**

**Representative to the American Association for the Advancement of Science**

John M. Cross, January 1, 1958.

**Delegates to the American Council on Education**

Karl L. Kaufman, 1960, Voting Delegate; Francis J. O'Brien, 1959, First Alternate; Richard A. Deno, 1958, Second Alternate; George L. Webster, 1962, Voting Delegate; Charles W. Bliven, 1961, First Alternate; Joseph B. Sprowls, 1957, Second Alternate.

**Representatives to the American Council on Pharmaceutical Education**

Joseph B. Burt, 1962; Tom D. Rowe, 1960; Hugo H. Schaefer, 1958.

**Directors of the American Foundation for Pharmaceutical Education**

Richard A. Deno, 1961; Hugo H. Schaefer, 1961; Linwood F. Tice, 1959; George L. Webster; Louis C. Zopf.

**Delegate to the House of Delegates of the American Pharmaceutical Association**

Tom D. Rowe, 1958.

**Representative to the National Association of Retail Druggists**

Richard A. Deno.

**Representatives to the National Drug Trade Conference**

Roy A. Bowers, 1959; Hugo H. Schaefer, 1957; Linwood F. Tice, 1958.

**SECTIONS OF TEACHERS**

Officers and representatives for each section are listed in the following order: Chairman; Vice Chairman; Secretary-Treasurer; Representative.

**Biological Sciences**

Frank L. Mercer; Robert L. VanHorne; Morton J. Rodman; George F. Reddish.

**Chemistry**

Jack E. Orr; Allen I. White; Lee F. Worrell; Paul J. Jannke.

**Graduate Instruction**

Takeru Higuchi; Fred G. Drommond; Lloyd M. Parks; Ewart A. Swinyard.

**Pharmacy**

Glen J. Sperandio; Byrl E. Benton; L. E. Bingenheimer; E. E. Leuallen.

**Pharmacy Administration**

Paul A. Pumpian; Joseph H. Kern; Esther J. W. Hall; Ralph J. Mill.

**DISTRICTS OF BOARDS AND COLLEGES**

Officers for each District are listed in the following order: Chairman for the Boards, Chairman for the Colleges, Secretary-Treasurer.

**District Number 1 (Conn., Maine, Mass., N.H., R.I., Vt.)**

John F. Stephens; Donald M. Skauen; Maynard W. Quimby.

**District Number 2 (Del., D.C., Md., N.J., N.Y., Pa., Va., W.Va.)**

Ralph M. Ware, Jr.; Joseph B. Sprowls; Francis J. O'Brien.

**District Number 3 (Ala., Fla., Ga., Miss., N.C., P.R., S.C., Tenn.)**

Dewey H. Johnson; Perry A. Foote; Kenneth L. Waters.

**District Number 4** (Ill., Ind., Ky., Mich., Ohio, Wis.)

Robert E. Giles; Joseph S. Begando; Edward J. Rowe.

**District Number 5** (Iowa, Minn., Nebr., N.Dak., S.Dak.)

All Doerr and James Moore; Clifton E. Miller; C. Boyd Granberg.

**District Number 6** (Ark., Kans., La., Mo., Okla., Tex.)

A. L. Waddle; Stanley G. Mittelstaedt; Raphael O. Bachmann.

**District Number 7** (Idaho, Mont., Ore., Wash., Wyo.)

John Tripeny; Jack E. Orr; L. Wait Rising.

**District Number 8** (Ariz., Calif., Colo., Nev., N.Mex., Utah)

Robert Quinn; Fred G. Drommond; Ewart A. Swinyard.

## ROSTER OF DELEGATES AND REPRESENTATIVES, 57TH ANNUAL MEETING, AACP, APRIL 8-10, 1956

**Alabama P.I.:** L. S. Blake**Howard College:** J. T. Bryan, W. R. Byrum, J. E. Winter**U. Arizona:** W. R. Brewer, J. A. Zapotocky**U. Arkansas:** R. O. Bachmann, J. E. Dusenberry, S. G. Mittelstaedt, W. Strickland**U. California:** D. C. Brodie, T. C. Daniels, J. J. Eiler**U. Southern California:** E. S. Brady, A. G. Hall, O. H. Miller**U. Colorado:** F. G. Drommond, T. E. Jones, C. F. Poe**U. Connecticut:** E. Eugene, H. G. Hewitt, E. Greenblatt, B. Misk, A. Paul, A. E. Schwarting, D. M. Skauen**George Washington U.:** C. W. Bliven, F. D. Cooper**Howard U.:** C. I. Cooper, P. V. Hammond**Florida Agricultural & Mechanical U.:** H. H. McClain, Jr.**U. Florida:** P. A. Foote, W. J. Husa, J. H. Kern**Southern C. P.:** M. A. Chambers**U. Georgia:** C. W. Hartman, F. F. Millikan, K. L. Waters, R. C. Wilson**Idaho S. C.:** L. E. Gale**U. Illinois:** J. S. Begando, C. Bloomquist, D. L. Deardorff, H. M. Emig, J. E. Gearien, E. R. Kirch, A. W. Perkins, E. R. Serles, S. V. Susina, R. F. Voigt, C. L. Webster**Butler U.:** A. V. R. Beck, K. L. Kaufman, J. W. Lansdowne, J. W. Martin, D. B. Meyers, E. J. Rowe, B. A. Smith, E. E. Swanson**Purdue U.:** P. F. Belcastro, J. E. Christian, R. V. Evanson, G. L. Jenkins, A. N. Martin, T. S. Miya, G. J. Sperandio**Drake U.:** B. E. Benton, C. B. Granberg, R. T. Morrison**State U. Iowa:** S. M. Blaug, W. L. Kerr, J. L. Lach, W. W. Tester, R. L. VanHorne, G. A. Wiese, L. C. Zopf**U. Kansas:** C. F. Peterson**U. Kentucky:** A. C. Glasser, C. T. Lesshafft, Jr.**Loyola U.:** F. P. Cosgrove, J. F. McCloskey**Xavier U.:** L. F. Ferring**U. Maryland:** B. F. Allen, B. O. Cole, N. E. Foss, P. A. Pumpian, W. A. Purdum**Massachusetts C. P.:** C. W. Bauer, W. O. Foye, A. J. McBay, L. M. Ohmart, M. W. Quimby, H. L. Reed, R. A. Walsh, H. W. Youngken**New England C. P.:** C. Coles, S. Jonsson, C. N. Meriano, H. C. Raubenheimer, S. Silverman

- Detroit I. T.:** J. V. Crandall, M. E. Lozano, H. E. Melton, A. W. Reid,  
H. R. Seitz, C. H. Waldon
- Ferris I.:** R. E. Faust, K. K. Kazerovskis, R. M. Wilson
- U. Michigan:** F. F. Blicke, R. A. Deno, D. E. Francke, F. A. Grolle,  
A. M. Mattocks, W. E. McConnell, T. D. Rowe, L. F. Worrell
- Wayne U.:** H. E. Bailey, F. T. Brandt, E. R. Crandall, A. G. Danti,  
M. F. W. Dunker, R. J. Mill, R. K. Mulvey, S. Wilson
- U. Minnesota:** E. E. DiGangi, O. Gisvold, R. H. Miller, C. V. Netz, C.  
H. Rogers, T. O. Soine
- U. Mississippi:** S. T. Coker, E. L. Hammond, W. L. Nobles
- St. Louis C. P.:** C. L. Huyck, J. R. McCowan, F. L. Mercer, G. F. Red-  
dish, R. H. Schleif, A. F. Schlichting, J. R. Thayer
- U. Kansas City:** L. L. Eisenbrandt, J. A. Johnson, J. Peckham, W. J.  
Rost
- Montana State U.:** J. E. Orr
- Creighton U.:** W. A. Jarrett
- U. Nebraska:** J. B. Burt, H. G. O. Holck, R. A. Lyman, W. Saski, L. D.  
Small, V. E. Tyler, Jr.
- Rutgers U.:** R. Bogash, R. A. Bowers, J. M. Cross, M. Iannarone, J. A.  
Kearns, E. E. Little, A. D. Marcus, J. L. Voigt
- U. New Mexico:** E. L. Cataline, H. C. Ferguson
- Albany C. P.:** F. J. O'Brien, J. Lapetina, C. M. Reed
- Brooklyn C. P.:** L. D. Fonda, S. B. Jeffries, H. H. Schaefer, A. G. Zupko
- Columbia U.:** C. Berger, E. E. Leuallen, A. Taub
- Fordham U.:** A. J. Sica, C. T. Taylor
- St. John's U.:** A. Bartilucci, I. J. Bellafiore, J. L. Dandreaux, H. Eisen,  
B. Patel
- U. Buffalo:** L. D. Lockie, C. F. Lord, D. H. Murray
- U. North Carolina:** E. A. Brecht, F. C. Hammerness, F. T. Semeniuk,  
H. O. Thompson
- North Dakota A. C.:** C. E. Miller
- Ohio Northern U.:** A. Koffler, C. O. Lee, H. Nelson, A. C. Smith
- Ohio State U.:** J. L. Beal, F. W. Bope, E. P. Guth, L. E. Harris, J. W.  
Nelson
- U. Cincinnati:** R. F. Eling, M. Hoevel, J. L. Lichtin, J. F. Kowalewski
- U. Toledo:** J. I. Aponte, C. H. Larwood, K. H. Stahl
- Southwestern S. C.:** R. D. Gibson, W. D. Strother
- U. Oklahoma:** R. Bienfang, R. W. Clark
- Oregon S. C.:** G. E. Crossen, D. P. N. Tsao
- Duquesne U.:** J. G. Adams, A. C. Neva
- Philadelphia C. P.:** R. E. Abrams, M. Barr, I. Griffith, W. Ohernik,  
P. C. Olsen, E. W. Packman, L. Reber, G. V. Rossi, L. F. Tice
- Temple U.:** J. Autian, F. H. Eby, J. B. Sprowls
- U. Pittsburgh:** G. D. Beal, W. L. Blockstein, J. P. Buckley, E. P. Claus,  
E. C. Reif, R. W. Sager
- U. Puerto Rico:** N. M. King
- Rhode Island C. P.:** R. E. Brillhart, A. W. Cloffin, W. H. Rivard
- Medical C. South Carolina:** W. A. Prout
- U. South Carolina:** J. A. Campbell, R. C. Stokes
- South Dakota S. C.:** W. Lange
- U. Tennessee:** L. E. Bingenheimer, K. J. Goldner
- Texas Southern U.:** H. M. Jones, Jr.
- U. Houston:** N. M. Ferguson, M. G. Webber

- U. Texas:** J. H. Anette, H. M. Burlage, E. J. W. Hall, W. R. Lloyd,  
W. J. Sheffield, C. O. Wilson  
**U. Utah:** L. D. Hiner, G. E. Osborne, E. A. Swinyard  
**Medical C. Virginia:** M. L. Neuroth, W. E. Weaver  
**S. C. Washington:** H. Bang, M. R. Gibson, A. I. White  
**U. Washington:** L. Fischer, F. J. Goodrich, E. Krupski, E. M. Plein,  
H. W. Youngken, Jr.  
**West Virginia U.:** F. L. Geiler, J. L. Hayman, A. F. Wojcik  
**U. Wisconsin:** A. Berman, L. W. Busse, T. Higuchi, A. P. Lemberger,  
L. M. Parks, A. H. Uhl, D. E. Wurster

## PAST PLACES OF MEETING AND PAST OFFICERS, AACP

### PLACES OF MEETING

1. Richmond, Va., May 8-10, 1900
2. St. Louis, Mo., September 19-20, 1901
3. Philadelphia, Pa., September 12-15, 1902
4. Mackinac Island, Mich., August 3-5, 1903
5. Kansas City, Mo., September 7-8, 1904
6. Atlantic City, N.J., September 5-7, 1905
7. Indianapolis, Ind., September 5-6, 1906
8. New York, N.Y., September 4-5, 1907
9. Hot Springs, Ark., September 8-10, 1908
10. Los Angeles, Calif., August 17-18, 1909
11. Richmond, Va., May 4-5, 1910
12. Boston, Mass., August 16-17, 1911
13. Denver, Colo., August 20-22, 1912
14. Nashville, Tenn., August 20-21, 1913
15. Detroit, Mich., August 25-26, 1914
16. San Francisco, Calif., August 6-7, 1915
17. Philadelphia, Pa., September 1-2, 1916
18. Indianapolis, Ind., August 27-28, 1917
19. Chicago, Ill., August 12-13, 1918
20. New York, N.Y., August 25-27, 1919
21. Washington, D.C., May 5-6, 1920
22. New Orleans, La., September 5-6, 1921
23. Cleveland, Ohio, August 14-15, 1922
24. Asheville, N.C., September 3-4, 1923
25. Buffalo, N.Y., August 25-26, 1924
26. Des Moines, Iowa, August 24-25, 1925
27. Philadelphia, Pa., September 13-14, 1926
28. St. Louis, Mo., August 22-23, 1927
29. Portland, Me., August 20-21, 1928
30. Rapid City, S.Dak., August 26-27, 1929
31. Baltimore, Md., May 5-6, 1930
32. Miami, Fla., July 27-28, 1931
33. Toronto, Canada, August 22-23, 1932
34. Madison, Wis., August 28-29, 1933
35. Washington, D.C., May 7-8, 1934
36. Portland, Ore., August 5-6, 1935
37. Dallas, Texas, August 24-25, 1936
38. New York, N. Y., August 16-17, 1937

39. Minneapolis, Minn., August 22-23, 1938
40. Atlanta, Ga., August 21-22, 1939
41. Richmond, Va., May 6-7, 1940
42. Detroit, Mich., August 18-19, 1941
43. Denver, Colo., August 17-18, 1942
44. Columbus, Ohio, September 9-10, 1943
45. Cleveland, Ohio, September 7-8, 1944
46. Washington, D.C. (Executive Committee only), Nov. 8-10, 1945
47. Pittsburgh, Pa., August 25-27, 1946
48. Milwaukee, Wis., August 24-25, 1947
49. San Francisco, Calif., August 8-10, 1948
50. Jacksonville, Fla., April 24-26, 1949
51. Atlantic City, N.J., April 29-May 2, 1950
52. Buffalo, N.Y., August 26-28, 1951
53. Philadelphia, Pa., August 21-22, 1952
54. Salt Lake City, Utah, August 16-18, 1953
55. Boston, Mass., August 22-24, 1954
56. Miami Beach, Fla., May 1-3, 1955
57. Detroit, Mich., April 8-10, 1956

## PAST OFFICERS OF THE ASSOCIATION

## Presidents

*Albert A. Prescott .....	1900-01	*Andrew G. DuMez .....	1928-29
*Joseph P. Remington .....	1901-02	*J. Grover Beard .....	1929-30
*Edward Kremers .....	1902-03	*Julius W. Sturmer .....	1930-31
*Henry K. Rusby .....	1903-04	*Townes R. Leigh .....	1931-32
*George B. Kauffman .....	1904-05	Charles H. Stocking .....	1932-33
*Henry M. Whelpley .....	1905-06	*L. D. Havenhill .....	1933-34
*James H. Beal .....	1906-07	Ernest Little .....	1934-35
*John T. McGill .....	1907-08	Robert C. Wilson .....	1935-36
*Henry P. Hunson .....	1908-09	*Theodore J. Bradley .....	1936-37
*William M. Searby .....	1909-10	*William G. Crockett .....	1936-37
*Julius O. Schlotterbeck .....	1910-12	*Hugh C. Muldoon .....	1937-38
*Albert H. Clark .....	1912-13	Earl R. Serles .....	1938-39
*Albert Schneider .....	1913-14	Charles H. Rogers .....	1939-40
*Frederick J. Wulling .....	1914-15	*H. Evert Kendig .....	1940-41
*Harry V. Arny .....	1915-16	Rudolph A. Kuever .....	1941-42
Rufus A. Lyman .....	1916-17	Howard C. Newton .....	1942-43
*Henry Kraemer .....	1917-18	Forest J. Goodrich .....	1943-44
*Charles B. Jordan .....	1918-19	Glenn L. Jenkins .....	1944-46
*Wortley F. Rudd .....	1919-20	Henry S. Johnson .....	1946-47
Wilber J. Teeters .....	1920-21	Arthur H. Uhl .....	1947-48
*Clair A. Dye .....	1921-22	J. Lester Hayman .....	1948-49
*Charles H. LaWall .....	1922-23	Bernard V. Christensen .....	1949-50
*Charles W. Johnson .....	1923-24	Hugo H. Schaefer .....	1950-51
*Washington H. Zeigler .....	1924-25	J. Allen Reese .....	1951-52
Edward H. Kraus .....	1925-26	Troy C. Daniels .....	1952-53
*David B. R. Johnson .....	1926-27	Edward C. Reif .....	1953-54
Edward Spease .....	1927-28	Joseph B. Burt .....	1954-55
		Linwood F. Tice .....	1955-56

**Vice-Presidents**

*Joseph P. Remington .....	1900-01	Charles E. F. Mollett ....	1928-29
*Edward Kremers .....	1901-02	Earl R. Serles .....	1929-30
*Henry H. Rusby .....	1902-03	Henry A. Langenhan .....	1930-31
*George B. Kaufman .....	1903-04	Edward D. Davy .....	1931-32
*C. Lewis Diehl .....	1904-06	Robert C. Wilson .....	1932-33
*John T. McGill .....	1906-07	Ernest Little .....	1933-34
*Clement B. Lowe .....	1907-08	Antone O. Mickelsen .....	1934-35
*Alviso B. Stevens .....	1908-09	Homer C. Washburn .....	1935-36
*Elie H. LaPierre .....	1909-10	*William G. Crockett .....	1936-37
Wilber J. Teeters .....	1910-11	Elmer L. Hammond .....	1937-38
*Albert H. Clark .....	1911-12	James M. Dille .....	1938-39
*Albert Schneider .....	1912-13	*Marion L. Jacobs .....	1939-40
*Edsel A. Ruddiman .....	1913-14	Eugene O. Leonard .....	1940-41
*Harry V. Arny .....	1914-15	Perry A. Foote .....	1941-42
Rufus A. Lyman .....	1915-16	A. B. Lemon .....	1942-43
*Theodore J. Bradley .....	1916-17	Henry S. Johnson .....	1943-44
*Charles E. Caspari .....	1917-18	*Gordon L. Curry .....	1944-46
William Mansfield .....	1918-19	William F. Sudro .....	1946-47
*Julius A. Koch .....	1919-20	John F. McCloskey .....	1947-48
*Washington H. Zeigler ....	1920-21	J. Allen Reese .....	1948-49
*Evander F. Kelly .....	1921-22	Thomas D. Rowe .....	1949-50
Charles H. Stocking .....	1922-23	Harold G. Hewitt .....	1950-51
*Edward V. Howell .....	1923-24	Troy C. Daniels .....	1951-52
Robert P. Fischelis .....	1924-25	L. David Hiner .....	1952-53
*J. Grover Beard .....	1925-26	Kenneth L. Waters .....	1953-54
*Andrew G. DuMez .....	1926-27	Chauncey I. Cooper .....	1954-55
Henry M. Faser .....	1927-28	Francis J. O'Brien .....	1955-56

**Secretary-Treasurers**

*Wymond H. Bradbury .....	1900-01	*Theodore J. Bradley .....	1917-22
*Wilbur L. Scoville .....	1901-04	Zada M. Cooper .....	1922-42
*Julius O. Schlotterbeck ..	1904-08	Clark T. Eidsmoe .....	1942-47
*George C. Dickman .....	1908-10	Louis C. Zopf .....	1947-53
*Charles W. Johnson .....	1910-13	Richard A. Deno .....	1953-56
Wilber J. Teeters .....	1913-17		

**Chairmen of Executive Committee**

*James H. Beal .....	1900-03	*Charles B. Jordan .....	1923-36
*Henry M. Whelpley .....	1903-05	Ernest Little .....	1936-41
*William A. Puckner .....	1905-08	Charles H. Rogers .....	1941-43
*Julius A. Koch .....	1908-19	B. V. Christensen .....	1943-48
*Henry Kracmer .....	1919-20	Joseph B. Burt .....	1948-53
Rufus A. Lyman .....	1920-23	Louis C. Zopf .....	1953-
*Deceased			

## DR. LYMAN COMMENTS

The 1956 meeting of the American Association of Colleges of Pharmacy is now history. For one who has followed the trends in pharmaceutical education for half a century, minus one year, the battleground of Detroit has a special interest. The story has stimulating and inspirational aspects.

The first meeting of the American Association of Colleges of Pharmacy (then the American Conference of Pharmaceutical Faculties) which I attended was held in Hot Springs, Arkansas, in 1908. For me that meeting opened a new world. Before that meeting I knew the names of only two men engaged in pharmaceutical education. They were Joseph P. Remington and Henry H. Rusby. These names I had met in my medical studies. At this meeting I discovered a galaxy of giants in pharmaceutical education. It was the era of Edward Kremers and James H. Beal, William M. Searby and Julius A. Koch, and a host of other distinguished men too numerous to mention here.

I am afraid I was so interested in the study of the personalities of this group of men that I gave little attention to the educational problems under discussion. I was on the outside looking in. Pharmaceutical instruction had just been authorized at the University of Nebraska, and the rule was that a school must serve a probationary period of five years of continuous operation, as a qualification for membership in the Conference.

One problem that came up at that meeting I did remember. I suppose it was because of the incongruity of the rule. I had not heard of such an incongruity in medical or general education. I learned that in pharmaceutical education there existed an iron curtain, hung along the Mason and Dixon Line. North of the Line, the Conference required one year of high school training for membership. South of that Line, the completion of the eighth grade was sufficient. That raised the question whether students south of the Line were superior intellectually to those north of the Line or inferior economically. This was in the era when one of the strongest arguments used against increasing the requirements for the study of pharmacy was that such an increase would mitigate against the "poor boy." This view was held in spite of the fact that history shows that the "poor boy" has taken care of himself



pretty well ever since the Pilgrims landed on Plymouth Rock.

To the Conference, by unanimous vote at the Hot Springs meeting, belongs the credit of eliminating the Mason and Dixon Line in so far as pharmaceutical education was concerned. The incongruity was abolished, and it seemed as if pharmaceutical education was at last on the march.

Six years later, 1914, the battleground was in Detroit. The problem confronting the Conference at that meeting was a proposal to increase the study for membership from one year to two of high school training. This was the most vigorously and bitterly fought battle in my time. It was incomprehensible to my inexperienced mind how the distinguished scientist and educator, the beloved Dr. Henry H. Rusby, could lead the opposition to that proposal. When I asked him why he opposed, he said that he was the dean of a college of pharmacy that had been taken over by a great university, and when that was done a greater moral obligation was placed upon the college, but it was given no financial support from the general university funds. It was necessary to keep entrance requirements low in order to have enough students to give sufficient funds to operate. It was then that I learned of the problems of the independent school. They made necessary affiliating with a university for financial support or acquiring a sizable endowment. The opponents lost; two years became the minimal requirement for Conference membership and pharmaceutical education was definitely on the march.

Years passed, and again Detroit came into the picture. In Detroit in 1941 the retiring president of the Association, Dean H. Evert Kendig, and the incoming president, Dean R. A. Kuever, sounded the clarion call that some studies on the college level be required, in the near future, preliminary to the study of the professional courses. A definite date for this requirement was set by both the Colleges and the Boards at the Salt Lake meeting in 1953. The remarkable fact stands out that at the 1956 Detroit meeting all opposition to the extension of the educational program seems to have faded away. There could be no better evidence that pharmaceutical education is on the march and that the vision of educators is fixed on the new horizon. In that we should find both satisfaction and inspiration.

I have commented on this subject, not for the men of my generation but for those of the present one. We sometimes feel we are moving too slowly, but there has been no other advancement in professional education in the Twentieth Century comparable to this. From here the present generation must carry on.

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Dr. Julius Arnold Koch, one of the most outstanding men in American Pharmacy, passed away early in February. He was a graduate of the Pittsburgh College of Pharmacy in the class of 1884. After graduation he did special studies in German universities. He became dean of the Pittsburgh College in 1891. He had a distinguished career as a scientist and educator and served the American Conference of Pharmaceutical Faculties as Chairman of the Executive Committee from 1908 to 1919. While Dr. Koch was never aggressive in extending the program of pharmaceutical education, he did have a stabilizing influence in the Conference through his long years of service.

After retirement he spent his remaining years in Ocala, Florida. He was 91 when he died. He will be remembered by those who were fortunate enough to know him as a lovable and ever helpful friend.

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The passing of Hugh C. Muldoon will leave a blank in many hearts until the passage of time has softened the sorrow. Then we will experience the joy of having had him with us through the years.

His accomplishments are on record where records are kept. Others, undoubtedly, will mention them, but I shall speak of the man as I knew him. I first met him when he was dean of the College of Pharmacy at Valparaiso University in the early twenties. It was a case of love at first sight. I have been loving and admiring him ever since.

Of his idealism I would write if I had a better vocabulary than his own. That I do not have, so I shall let him speak for himself in his own way as he wrote in his presidential address before the American Association of Colleges of Pharmacy at the Minneapolis meeting in 1938. This is what he said:

Teachers who are products of a profession that until recently has been conditioned by years of attention to the acquiring of facts, may not find it easy to change some of their ideas and methods, but it is important that they do so. They must learn to teach men, not subjects. They must not be satisfied with the development of an aggregation of skills. Education goes beyond mere factual knowledge; it should be a stabilizing influence throughout life. Teachers should be concerned with the attitudes and habits and appreciations of their students as well as with their techniques. They must try to develop the ability of students to think independently and to reason logically. Our graduates should have right ideals and high standards of competence. We do not want them to have distorted values. They should have a regard for truth and honesty, and courage, and loyalty, and diligence, and courtesy, and the other simple virtues that the modern

world seems to think old-fashioned; for just as a century ago there was need for a higher level of literacy, there is need of a higher level of character. We should assist in the development of the moral powers and personality and character of our students, and not feel that we are responsible for their intellectual advance alone. We must help those under our charge to become socially mature and responsive to the political and economic as well as the professional and scientific changes of the times. This is especially important in these days of growing racial, religious and political tensions. Our graduates should have an enthusiasm for their profession, a knowledge of its problems, and an understanding of their responsibility to it, and to the public. They should be taught to consider what they can do for pharmacy as well as what pharmacy can do for them. They should be able to interpret pharmacy to the world graciously, with dignity, honesty and well.

In that paragraph Dean Muldoon expressed the objectives of his life, objectives which he taught. But more important was the fact that he lived them, and he lived them with kindness, gentleness, sincerity, and forcefulness.

On another occasion he raised these questions:

Are our graduates fitted adequately for the struggle environment in which they will soon find themselves? Are they properly prepared for their duties as professional men and for their special responsibilities as citizens? What are we doing for the whole man?

Hugh C. Muldoon devoted his entire life "doing for the whole man." He retired recently from administrative duties in order that he might devote his time to writing and to living surrounded by the beauty of a Pennsylvania farm he had developed through the years, a fitting step on the way to paradise. If any human being ever approached the immaculate in his living, it was the lovable Hugh C. Muldoon.

Rufus A. Lyman

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*Professional complacency—a willingness to be satisfied with objectives already reached without consideration for present and future responsibilities—is the greatest enemy of the professional group which is serious enough to set up a goal for itself and then bend every effort toward reaching it.*

R. A. Kuever, *Am. J. Pharm. Ed.*, 6, 366 (1942)

## ANNOUNCEMENTS

**Detroit panel.** The panel, "Problems of Admission from Pre-pharmaceutical Programs," presented at the Detroit meeting will be published in the Fall issue.

**History institute membership.** The American Institute of the History of Pharmacy extends a cordial invitation to all individuals interested in the social and historical background of the profession of pharmacy to become members. Individual memberships are available at five dollars annually. Institutional memberships (libraries, schools, etc.) are ten dollars annually. In addition, a number of organizations and individuals have generously contributed to the Institute in excess of the regular dues and are designated as Supporting Members.

During 1955, members of the American Institute of the History of Pharmacy received the following publications:

G. P. Srivastava: *History of Indian Pharmacy*. Vol. 1, 2nd ed. Calcutta, 1954.

*National Association of Boards of Pharmacy 1904-1954*. Published by the American Institute of the History of Pharmacy in cooperation with the National Association of Boards of Pharmacy, Madison, 1955. This brochure contains papers by Roy B. Cook, Glenn Sonnedecker, P. H. Costello, and Robert L. Swain.

George G. Griffenhagen: "Early American Pharmacies," reprinted from the *Journal of the American Pharmaceutical Association (Practical Pharmacy Edition)*. American Pharmaceutical Association, Washington, D.C., 1955.

Norman H. Franke: *Pharmaceutical Conditions and Drug Supply in the Confederacy*. Contributions from the History of Pharmacy Department of the School of Pharmacy, University of Wisconsin, No. 3, Madison, 1955.

*AIHP Notes*, Vol. 1, Nos. 1-3, 1955.

*Pharmaceutical Antiques*. A selected bibliography compiled by George Griffenhagen.

*Pharmaceutical Philately*. A selected bibliography compiled by Franklin Bruns, Jr., and George Griffenhagen.

*Pharmaceutical Numismatics*. A selected bibliography compiled by Stuart Mosher and George Griffenhagen.

*Some Publications on the Method and Craft of Historical Writing.* Annotated bibliography.

*A Few Selected Books on Book Collecting.* Annotated bibliography. List of dealers attached.

Reproduction of a portrait of Edward Parrish (1822-1877).  
Distributed to members at Christmas.

For additional information write to the Secretary, American Institute of the History of Pharmacy, Chemistry Building, University of Wisconsin, Madison 6, Wis.

**AAAS announcement.** You or your colleagues are cordially invited to present a paper at the Pharmacy Section Meeting of the American Association for the Advancement of Science and participating affiliated and associated societies to be held in New York City the week starting December 26.

The Pharmacy Section Meeting will start Wednesday, December 26, at 8:00 P.M. with a contributed paper session and will be followed by other sessions on December 27, 28, and 29. Three symposia have been arranged in addition to the association-wide symposium on "Moving Frontiers of Science" which are to be held in the afternoons of December 27 and 28. "The Significance of Cosmetics in Medical Practice" will be discussed starting at 8:00 P.M., December 27, "Tablet Coating Problems" will be discussed starting at 9:00 A.M., December 28, and a special joint symposium co-sponsored with Chemistry, Dentistry, and Medicine on "Anti-enzymes" will be held starting at 2:00 P.M., December 29.

Authors who wish to present papers before the contributed paper sessions are requested to send in titles of papers along with an original and one copy of a short abstract *as soon as possible*. All titles and abstracts for inclusion in the printed program must be in by *September 21*. These should be mailed to the secretary of the pharmacy section, Dr. John E. Christian, School of Pharmacy, Purdue University, Lafayette, Indiana.

Submitted papers should require not more than 10 to 15 minutes for presentation. A copy of the completed manuscript is required not later than the time of the meeting, and authors may publish in the journal of their choice.

The five Pennsylvania Station Zone Hotels in New York, all within a block or two of each other, will be the principal site of the meetings with the Statler serving as AAAS Headquarters. For further information see *Science* or *Scientific Monthly* beginning in the May and June issues.

**Lederle research grant.** A \$10,000 research grant made available to the American Society of Hospital Pharmacists by Lederle

Laboratories Division of the American Cyanamid Co. was announced at the annual meeting of the ASHP in Detroit.

Monies from this grant will be allocated for research for the improvement of hospital pharmacy services and for the formulation and development of pharmaceuticals prepared in hospital pharmacies.

Administering this grant will be the Society's newly organized Committee on Research and Development to which President Paul Parker has named Milton Skolaut, chairman, Clifton Latiolais, and William Heller. Research projects to receive support from this grant will be chosen by an independent Board of Selection composed of persons thoroughly familiar with hospital pharmacy and hospital pharmacy education.

Proposals may be submitted by practicing hospital pharmacists, students, teachers, and others interested in the betterment of hospital pharmacy practices. Application blanks will be available soon from the American Society of Hospital Pharmacists, 2215 Constitution Ave., N.W., Washington 7, D.C. Receipt of all applications will be acknowledged.

Although no specific deadline for applications has been set, it would be desirable to submit applications as early as possible. All projects supported by the Lederle grant must be processed, chosen by the Board of Selection, and submitted for final approval to the Executive Committee of the Society at its interim meeting, probably in November. Later applications may be eligible for possible future grants.

**Pakistan pharmaceutical conference.** The Second Pakistan Pharmaceutical Conference and Exhibition will be held in Karachi from the 16th to 18th of November, 1956, under the auspices of the Pharmaceutical Society of Pakistan. The program of the Conference includes presentation of scientific papers, symposia of pharmaceutical education and legislation, popular lectures, and films on the pharmaceutical profession and industry. There will be an Exhibition of foreign and indigenous drugs, medicines, cosmetics, surgical instruments and appliances, machinery and equipment. Delegates from all countries are cordially invited to participate in the Conference by attending and contributing scientific papers. Those wishing to exhibit are requested to apply for display space at an early date. Advance booking for advertising space in the Conference Brochure has started. For further information please contact The Secretary, Pharmaceutical Society of Pakistan, Lotia Building, Nanakwara, Karachi-2.

**Accredited colleges of pharmacy.** On July 1 the American

Council on Pharmaceutical Education announced the following classification of accredited colleges of pharmacy: Class A—Alabama Polytechnic Institute, Howard College, University of Arizona, University of Arkansas, University of California, University of Southern California, University of Colorado, University of Connecticut, George Washington University, Howard University, University of Florida, Florida Agricultural and Mechanical University, University of Georgia, Idaho State College, University of Illinois, Butler University, Purdue University, Drake University, State University of Iowa, University of Kansas, University of Kentucky, Loyola University, Xavier University, University of Maryland, Massachusetts College of Pharmacy, Ferris Institute, University of Michigan, Wayne University, University of Minnesota, University of Mississippi, St. Louis College of Pharmacy and Allied Sciences, University of Kansas City, Montana State University, Creighton University, University of Nebraska, Rutgers University, University of New Mexico, Columbia University, Fordham University, Brooklyn College of Pharmacy, St. John's University, Albany College of Pharmacy, University of Buffalo, University of North Carolina, North Dakota Agricultural College, Ohio Northern University, Ohio State University, University of Cincinnati, University of Toledo, Southwestern State College, University of Oklahoma, Oregon State College, Duquesne University, Philadelphia College of Pharmacy and Science, Temple University, University of Pittsburgh, University of Puerto Rico, Medical College of South Carolina, University of South Carolina, South Dakota State College of Agriculture and Mechanic Arts, University of Tennessee, Texas Southern University, University of Houston, University of Texas, University of Utah, Medical College of Virginia, State College of Washington, University of Washington, West Virginia University, University of Wisconsin, University of Wyoming; Class B—Detroit Institute of Technology, Rhode Island College of Pharmacy and Allied Sciences; Class C—Southern College of Pharmacy, New England College of Pharmacy.

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*Just as a man or woman is judged by his appearance and accomplishments and not by his noble intentions or potential possibilities, so is a profession.*

John W. Nelson, *Am. J. Pharm. Ed.*, 7, 558 (1943)



## MEMORIALS

### **JULIUS ARNOLD KOCH**

On February 10, 1956, the illustrious career of Julius Arnold Koch came to an end. Dr. Koch, first dean of the Pittsburgh College of Pharmacy, now the University of Pittsburgh School of Pharmacy, enriched the profession through his contributions spanning six decades.

Born in Bremen, Germany, in 1864, while his parents were on a visit to their native land, Dr. Koch was associated with his father in the drug business for seven years before he went into teaching.

In 1884, the sixth year after the founding of the Pittsburgh College of Pharmacy, Dr. Koch graduated. In 1891 he was called from retail pharmacy to his alma mater to hold the chair of Professor of Pharmacy and to be Dean of the Faculty.

During the years 1896 and 1897 Dr. Koch was granted a leave of absence to engage in chemical research in Germany. In his first year he studied organic synthesis under Adolph von Beyer at Munich and the following year continued work in the same field under Gatterman and Victor Meyer at Heidelberg. This original work on aromatic aldehydes, especially the synthesis by the modification of the Friedel-Crafts reaction, is familiar to all advanced students in organic chemistry and is popularly known as the Gatterman-Koch synthesis.

Upon his return to the city of Pittsburgh he continued as Dean of the School of Pharmacy and, in addition, in 1901 he was appointed Professor of Chemistry and Director of the Chemical Laboratories of the School of Medicine of the Western University of Pennsylvania, now the University of Pittsburgh. Not only was he actively engaged in teaching at this time, he was also continuing his own education. In 1905 he received the Ph.D. degree in course from Scio (Ohio) College. His excellence in education, administration, and research brought him many honors, including a D.Sc. degree from Washington and Jefferson College, a Master of Pharmacy degree from the Philadelphia College of Pharmacy and Science, and the Doctor of Pharmacy from his alma mater.

In 1908 Dr. Koch became chairman of the executive committee of the American Conference of Pharmaceutical Faculties, fore-runner of the present-day American Association of Colleges of

Pharmacy. During this period he attempted to standardize pharmaceutical curricula and degree requirements in all colleges of pharmacy in the United States. This pioneer work on his part resulted in the adoption of higher standards by the leading schools of pharmacy, which gave great impetus to the raising of standards by state enactments throughout the entire United States. Dr. Koch was one of the founders and the first president of the Pittsburgh Branch of the A.Ph.A., which was organized in 1909. He was also past-president of the Pennsylvania Pharmaceutical Association and the American Pharmaceutical Association, and, at the time of his death, was the oldest living past-president of all three organizations.

One record of Dr. Koch's will probably never be equalled—that is, his attendance and active participation in seven decennial revision conventions of the U.S. Pharmacopeia. His first trip as delegate was made to the USP Convention in 1890 and his last at the 1950 convention in Washington, D.C.

He was a member of a number of scientific and professional associations, including the AAAS, American Pharmaceutical Association, Pennsylvania Pharmaceutical Association, British Pharmaceutical Conference, the Federation Internationale Pharmaceutique, Deutschen Chemischen Gesellschaft, National Institute of Social Sciences, and served as one of America's delegates to the 11th International Congress of Pharmacy at The Hague. He was a life member of Bellefield Lodge, F. & A.M.

Tall and erect in bearing, Dr. Koch was a commanding figure in American pharmacy; a pharmacist, son of a pharmacist; a teacher in a family of teachers. His interests ranged far and wide, from better educational administration through higher standards in pharmaceutical education, through studies on how best the pharmacist could serve the public, which resulted in the Charters Survey. Everything touched by this man of greatness bore his mark. His college under his leadership became a first-ranking institution, one of those which was quick to adopt requirements aimed at the elevation of standards and at raising the level of the practice of pharmacy. His work on national committees, advisory boards, and commissions served to spread the gospel of the greatness of pharmacy, built upon firm educational foundations.

Dr. Koch also found time to express himself in writing and was a contributor for many, many years to publications both here and abroad. He was reporter of the Progress of Pharmacy and served for a time as editor of the *Yearbook of the American Pharmaceutical Association*. In 1932 Dr. Koch retired from teaching and administration and was named Dean Emeritus at that time.

As a chemist, a teacher, and an administrator, he will ever rank high in the annals of American Pharmacy. (Edward C. Reif and William L. Blockstein)

### GEORGE BERNARD HOOK

On April 2, 1956, the promising career of George Bernard Hook was ended in an airplane accident in Puget Sound, Washington. Dr. Hook had enplaned for Detroit, Michigan, to attend the convention of the American Pharmaceutical Association and to conduct official business for the Public Health Service.

Dr. Hook had received his grade and high school education in Kane, Pennsylvania. He entered the United States Army in the days prior to America's entry into World War II. Rising through the ranks from his original enlistment as private, George Hook reached the rank of Captain in the Medical Service Corps. Later, while maintaining his reserve status, he was promoted to the rank of Major.

He enrolled in the School of Pharmacy in February, 1946, and graduated with the Bachelor of Science degree in June, 1949. As a student, he served as class president, vice-president of the Student Branch of the A.Ph.A., and was a member of Kappa Psi Pharmaceutical Fraternity.

Following his graduation, he practiced pharmacy in Warren, Pennsylvania, until the fall of 1950, when he accepted the invitation of Dr. Stephen Wilson to continue his formal education in pharmacy administration. At that time he was named as a George A. Kelly, Sr., Teaching Fellow. In 1952, after receiving the degree of Master of Science, with a major in pharmacy administration, Mr. Hook was named to the faculty of the School of Pharmacy with the rank of instructor. He continued his teaching and also his education toward the doctor of philosophy degree. During this period of his life, Mr. Hook was active on many university and school committees and served as faculty adviser to the Student Branch of the A.Ph.A., as well as co-adviser to the Pharmacy School Inter-fraternity Council. He also published articles dealing with his special interests in pharmacy. These appeared at almost regular intervals during this period.

In June 1955, George B. Hook was awarded the degree of Doctor of Philosophy from the University of Pittsburgh, marking him as one of the first two candidates to be granted this degree for work in pharmacy administration.

In August, 1955, Dr. Hook accepted the position of Area Pharmacy Officer, United States Public Health Service, Bureau of

Indian Medicine, with headquarters in Tacoma, Washington, which he held at the time of his death.

Dr. Hook's service to education was marked by his systematic, yet human, approach to the study of the business and management affairs of pharmacy, and by intensive research into the history of this field. His experience as an apprentice and manager of drug outlets, coupled with his background in economics and administration, made him well qualified to devote his efforts to the teaching of pharmacy students.

In addition to his membership in the A.Ph.A. and Kappa Psi Fraternity, Dr. Hook was a member of the Society of the Sigma Xi and Rho Chi Honorary Pharmaceutical Society.

Dr. Hook is survived by his wife, Bernice, and four children—Carolyn Ann, Eleanor, William, and Bernice. His passing will be regarded as a distinct loss to pharmacy, for his qualifications were such as to promise success in whatever activity he chose to engage. (William L. Blockstein and Joseph D. McEvilla)

### **STEWART W. FREYBURGER**

Dr. Stewart W. Freyburger, Instructor in Physiology of the College of Pharmacy, University of Florida, lost his life by drowning on March 18, 1956. He was born in Chicago, Illinois, January 29, 1921. He received the Bachelor of Science degree with a major in zoology from the University of Illinois in 1948, and the Master of Science degree with a major in mammalian physiology from the University of Illinois in 1949. In January 1956 he was awarded the degree of Doctor of Philosophy with a major in pharmacology by the University of Florida.

Prior to coming to the University of Florida, Dr. Freyburger had served one year, 1949-50, as Instructor in Physiology at the University of Arizona College of Pharmacy. He was a veteran of World War II, having served in the Medical Corps, and spent most of his service-connected career in the China-Burma-India Theater.

Dr. Freyburger was a member of the American Academy for the Advancement of Science, the Illinois Academy of Science, the American Society of Professional Biologists, and the American Association of University Professors.

Dr. Freyburger taught the courses in anatomy and physiology in the College of Pharmacy. In addition to his professional activities he was also particularly interested in underwater explorations and aviation. He had a very practical grasp of electronic instrumentation and produced a new electronic instrument for recording blood pressure.

Dr. Freyburger is survived by his widow, Melba, a daughter, Nancy, aged 7 years, and his parents, Mr. and Mrs. Walter D. Freyburger of Santa Ana, California. (Elbert Voss)

### HUGH C. MULDOON

*Editor's Note: The memorial tribute to the late Dean Muldoon is in two parts: a poem by Clarence C. Walton, Dean of the School of Business Administration, Duquesne University; and "In Memoriam" by Daniel M. Philbin, a Duquesne student.*

List, O Punctillious Apothecary,  
Rara Avis, Spirit Merry,  
Whilst we sing in cadence measured  
Of thyself and memories treasured.

Haste! Make clear that recollection  
Of vanished year when prediction  
Purged recision from decision,  
And led thee westward to our vision.  
Recallest thou Dad Hehir's injunction  
Which aptly limned the young dean's function,  
Prescribed a score of years and ten?  
"Make them scholars. Make them men."

The new young dean taught eloquently  
Quintessential essentials, a colloquy  
On what to do and how to do it  
(How careless students lived to rue it!)  
With preachments pointed, such as these—  
"Slurp not tea and knife not peas  
For Fate insists the pharmacist  
Be worthy of his pharmacy."

"Alas, alack" did fledglings groan  
And wish their Dean a fairer home,  
Where he with leisure time could be  
On Dushore's farm—sans pharm ici.  
Despite laments, practitioners seasoned  
Left these ivy halls well reasoned,  
Fit to brew and sip their tea,  
Having mastered pharmacognosy.

Purloiner of hearts, O Proud Picaroon,  
Hold us captive fore'er on thy frigate, Muldoon.  
Scheme with us, dream with us, ever imparting  
Bonds of affection that defy all parting.  
O Rara Avis, O Spirit Merry  
Share with us thy shining glory,  
Sing with us, in cadence measured,  
Of thyself and memories treasured—

A priceless store,  
A fabled lore  
Forevermore.

(Clarence C. Walton)

### IN MEMORIAM

Only the great will live forever. All others will soon be forgotten. The sad news that Dr. Hugh C. Muldoon, founder and former Dean of our school of pharmacy, passed away on Friday, May 4th, is now somewhat overshadowed by the consoling thought that he lives in the spirit of the school he built, in the hearts of the students and pharmacists he taught, and in the annals of history as one of the outstanding figures in American Pharmacy.

Even the briefest of glances at his life cannot help but disclose the amazing versatility of this man. Born sometime prior to the turn of the century in Truxton, New York, he grew up with a real love for pharmacy, a love nurtured by his hometown pharmacists. He received his Graduate in Pharmacy degree at Union University in Albany, New York, in 1912. That he graduated at the head of his class was but a small sign of his future greatness. He then started intensive postgraduate work, studying successively at Harvard, Massachusetts College of Pharmacy, Boston College, and Indiana and Duquesne Universities. His considerable accumulation of knowledge, which grew constantly while he lived, he applied to teaching. During the next few years he was Instructor in Chemistry and Latin at Massachusetts College of Pharmacy, Professor of Chemistry and Acting Dean at Union University, and Professor of Chemistry and Dean of the Pharmacy School at Valparaiso University.

Nineteen twenty-five was an important year in his life, and even more important, perhaps, in the lives of the graduates of our school of pharmacy, for on April 20th of that year the Very Reverend Martin A. Hehir, C.S.Sp., then President of Duquesne University, appointed him head of the new School of Pharmacy. Here he remained for thirty years, accumulating great personal fame while he built the school of pharmacy into the finest in the country; a glowing tribute to his ability.

He taught his students always the importance of a well-balanced education and constantly emphasized the necessity of supporting our professional organizations. This he did by word and deed. At the time of his death, he was a member of the American Chemical Society, the Pennsylvania Academy of Science, the National Science Teachers Association, Rho Chi, Phi Delta Chi, a Fellow of the American Association for the Advancement of Science, and a Fellow of the Royal Society of Arts of London. During his active life he was a member for twenty years of the Revision Committee of the United States Pharmacopeia, a subcommittee member of the National Formulary, and President of the American Association of Colleges of Pharmacy, 1937-1938. In 1949 he was one of

the five American pharmacists picked by General Douglas MacArthur to make a survey of pharmacy in Japan. He was an active member of the American Pharmaceutical Association for many years, serving as Chairman of the House of Delegates in 1947 and Chairman of the Committee on the Centennial Celebration of that organization. For his "... outstanding service to the profession as an educator, author, and scientist . . ." in 1953 he received pharmacy's Nobel Prize, the Remington Medal.

His accomplishments go on endlessly: founder and former editor of the Science Counselor, Advisory Editor of the American Pharmacy textbook series, and author of textbooks on Pharmaceutical Latin and Organic Chemistry.

Leading such a full and active life would have removed a lesser man from personal contact with his students. Until his retirement in June, 1955, he performed all of the academic and administrative duties of a Dean with his usual clarity and ease. As a teacher he was superb, possessing a rare combination of wit, understanding, and a reserve of infinite patience. He had the ability to explain complex problems to the novice with remarkable clarity. He could maintain a class at ease and yet always exercise control, demanding and getting the highest respect and love of his students.

The void created by his death is huge and can be filled only by his memory. That his memory will live is undeniable, for one does not forget Mr. Pharmacy. (Daniel M. Philbin)

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*The public does not formulate its opinion on the basis of the good education and training the pharmacist has had, or on the basis of what professional desires he may harbor in his mind, but on the basis of the kind of business they can see and with which they have contact.*

John W. Nelson, Am. J. Pharm. Ed., 7, 558 (1943)



## NEW LITTLE PEOPLE

**William Joseph Picchioni**—born April 19, 1956, to Dr. and Mrs. Albert Picchioni, University of Arizona.

**Nancy Ann Blackburn**—born March 31, 1956, to Dr. and Mrs. Dale Blackburn, Purdue University.

**Peter Thomas DeFeo**—born to Dr. and Mrs. John DeFeo, University of Pittsburgh.

**Martin John Heister**—born June 2, 1956, grandson of Dr. and Mrs. Louis Fischer, University of Washington.

**Mark Carey Urdang**—born May 6, 1956, to Dr. and Mrs. Arnold Urdang, Brooklyn College of Pharmacy.

**Ann Catherine Fay**—born March 19, 1956, to Mr. and Mrs. John T. Fay, Massachusetts College of Pharmacy.

**Paul Evan Salisbury**—born June 25, 1956, to Dr. and Mrs. Rupert Salisbury, Ohio State University.

**Karen Ann Beal**—born May 3, 1956, to Dr. and Mrs. Jack L. Beal, Ohio State University.

**Timothy Floyd Grolle**—born May 30, 1956, to Mr. and Mrs. Floyd Grolle, University of Michigan.

## MARRIAGES

**Dr. Arnold Marcus**, Assistant Professor of Pharmacy, Rutgers University, to Miss Judith Gottfried, June 17, 1956.

## STAFF CHANGES

### NEW STAFF MEMBERS

**Butler University.** Dr. Ara G. Paul, who recently received his Ph.D. from the University of Connecticut, has been appointed assistant professor of pharmacognosy and will assume his duties beginning with the fall semester.

**University of Wisconsin.** Mr. Joseph G. Cannon of the University of Illinois will join the staff in the fall.

**University of Kansas.** Mr. Lowell R. Macy has been appointed instructor in pharmacy.

**University of Kansas City.** Dr. Samuel T. Coker has been appointed associate professor of pharmacology.

**Medical College of Virginia.** Dr. Walter H. Hartung will join the staff as chairman of the department of pharmaceutical chemistry September 1. Dr. John Andrako will join the staff of the department of pharmaceutical chemistry September 1. Dr. Joseph Krezanoski, who recently received the Ph.D. degree from the University of California, will join the staff of the department of pharmacy July 1.

**Purdue University.** Dr. George K. Yim has been appointed assistant professor of pharmacology effective July 1. He received all his degrees from the State University of Iowa College of Pharmacy and College of Medicine.

**Temple University.** Dr. Charles Peterson, formerly of the University of Kansas, will become associate professor of pharmacy in September. Dr. Harry Kostenbauder, having completed graduate work at the University of Wisconsin, will become assistant professor of pharmacy in September. He is an alumnus of Temple.

**Philadelphia College of Pharmacy and Science.** Dr. Robert N. Jones has been named director of the department of mathematics and physics.

**University of North Carolina.** Dr. Sigurdur Jonsson of New England College of Pharmacy has been appointed associate professor of pharmaceutical chemistry.

**University of Washington.** Dr. Jack E. Orr of Montana State University has been appointed dean of the College of Pharmacy.

**Fordham University.** Dr. Theodore S. Kallelis has been appointed acting head of the pharmacy department and assistant professor of pharmacy. Dr. Walter J. Schuber has been appointed head of the chemistry department and associate professor of chemistry. Dr. Claude Piantadosi has been appointed assistant professor of pharmaceutical chemistry. Mr. John Maurer has been appointed instructor in chemistry. Mr. Andrew Butz has been appointed instructor of microbiology, and Miss Jean Savarese will become assistant instructor in the biological sciences.

**North Dakota Agricultural College.** Dr. Muriel C. Vincent of Oregon State College has been appointed assistant professor and acting chairman of pharmacy. Dr. Fred T. Galysh of Ohio State University has been appointed assistant professor and acting chairman of pharmacology. Mr. Jack Arendt of the University of Wisconsin has been appointed instructor of pharmacy.

**Brooklyn College of Pharmacy.** Dr. Paul Olsen of Philadelphia College of Pharmacy and Science will join the staff in 1957 as professor of pharmacy administration and chairman of the department. Dr. Harold Silverman of the Philadelphia College of Pharmacy and Science has been appointed as assistant professor of pharmacy.

**University of Colorado.** Dr. Curtis H. Waldon of Detroit Institute of Technology has been appointed dean of the College of Pharmacy.

**Ohio State University.** Dr. Lloyd Parks assumed his duties July 1 as dean of the College of Pharmacy.

**University of Michigan.** Dr. Alex Berman of the University of Wisconsin has been appointed assistant professor of pharmacy. Dr. Jere Goyan of the University of California has been appointed assistant professor of pharmacy.

## CHANGES IN STAFF TITLES

**Butler University.** Dr. John W. Martin has been promoted from assistant professor of pharmaceutical chemistry to associate professor.

**University of Wisconsin.** Dr. Glenn Sonnedecker has been promoted from assistant professor to associate professor. Dr. Hyman Mitchner has been promoted from instructor to assistant professor.

**George Washington University.** Mr. Franklin D. Cooper has been promoted from instructor of hospital pharmacy to assistant professor.

**University of Kansas.** Dr. Duane G. Wenzel has been promoted from associate professor of pharmacology to professor. Dr. Raymond E. Hopponen has been promoted from assistant professor of pharmacy to associate professor.

**Rutgers University.** Mr. David Frost has been promoted from instructor of biological sciences to assistant professor. Mr. Michael Iannarone has been promoted from assistant pro-

fessor of biological sciences to associate professor. Dr. Allan Yard has resigned as assistant professor of pharmacology to accept a research professorship at the Medical College of Virginia.

**University of Kansas City.** Dr. William J. Rost has been promoted from assistant professor of pharmaceutical chemistry to associate professor.

**Temple University.** Mr. Fred B. Gable, Instructor of Pharmacy, has been appointed as assistant dean. He will have both titles.

**University of North Carolina.** Dr. Ben F. Cooper has been promoted from instructor in pharmacy to assistant professor of pharmacy. Dr. F. C. Hammerness has been promoted from instructor of pharmacy administration to assistant professor. Mr. Earl T. Brown has been promoted from graduate fellow to assistant professor of pharmacy.

**University of Washington.** Dr. Forest J. Goodrich has relinquished his duties as dean but will become dean emeritus and professor of pharmacognosy. Dr. Nathan A. Hall has been promoted from assistant professor of pharmacy to associate professor.

**State College of Washington.** Dr. E. Roy Hammarlund has been promoted from assistant professor of pharmacy to associate professor. Mr. Richard J. Hampton has been promoted from instructor of pharmacy administration to assistant professor.

**North Dakota Agricultural College.** Dr. Martin Blake has been promoted from assistant professor of pharmaceutical chemistry to associate professor.

**University of New Mexico.** Dr. Raymond N. Castle has been promoted from associate professor of pharmaceutical chemistry to professor.

**University of Colorado.** Dr. Harold C. Heim has been promoted from associate professor of pharmacology to professor. Mr. Tony E. Jones has been promoted from instructor of pharmaceutical chemistry to assistant professor.

**Ohio State University.** Dr. Frank W. Bope is serving as assistant to the dean of the Graduate school for the summer.

**St. Louis College of Pharmacy and Allied Sciences.** Dr. Don G. Sheets was promoted from assistant professor of chemistry to associate professor. Mr. Jack L. Cross was promoted from instructor of pharmacy administration to assistant professor.

## GENERAL NEWS

**Audio-visual award.** The 1956 Audio-visual Education Award as announced at the Detroit meeting of the Association. This year the award was for a film in the area of pharmacology and presented to Dr. Albert L. Picchioni, Professor of Pharmacology, University of Arizona. The 16 mm, silent, color, thirty-minute film winning the award was entitled *Nalorphine Antagonism*.

**New deans chosen.** Dean Curtis H. Waldon of the Detroit Institute of Technology has accepted the deanship of the College of Pharmacy of the University of Colorado. Dean Jack E. Orr of Montana State University has been appointed dean of the College of Pharmacy of the University of Washington. Dr. Albert J. Sica has been appointed dean of the College of Pharmacy of Fordham University.

**Goodrich honored.** Dean Forest J. Goodrich of the University of Washington was recently honored at a testimonial dinner sponsored by the Washington State Pharmaceutical Association. Over four hundred students, graduates, colleagues, pharmacists, and friends attended. He was presented with a portrait by Wyeth Laboratories and a Cadillac sedan by his many friends.

**Honorary degrees.** Long Island University conferred the honorary doctor of laws degree on Dr. Hugo H. Schaefer, Dean Emeritus of Brooklyn College of Pharmacy. New England College of Pharmacy conferred the degree of honorary doctor of science on Dr. Robert L. Swain, Dean Constantine N. Meriano, and Hon. Peter J. Jordan. Rhode Island College of Pharmacy and Allied Sciences conferred the honorary degree of doctor of science on Dennis Joseph Roberts and the honorary degree of doctor of pharmacy on George Albert Raab, Leo Jerome Brennan, and Senator Hubert Horatio Humphrey.

**Corn products.** *Corn*, a publication of the Corn Industries Research Foundation (see Miscellaneous Publications) in its Spring, 1956, issue, features the use of corn and corn products in pharmacy.

**Irene M. Strieby honored.** Irene M. Strieby, library consultant at Eli Lilly and Company, has received the 1956 Professional Award of the Special Libraries Association. The Award, which recognizes notable professional achievement in, or contribution to, the field of special librarianship, was conferred June 6, at a dinner in the Hotel William Penn, Pittsburgh, during the association's annual convention.

**Pfeiffer Research Fellowship awards.** The American Foundation for Pharmaceutical Education has awarded the 1956-57 Gustavus A. Pfeiffer Memorial Research Fellowships to Dr. James W. Ingalls, Jr., for research studies on the pharmacological synergisms and antagonisms of meprobamate at Long Island University and to Dr. Lewis Nobles for research studies in the preparation of thiophene analogs and synthesis of certain 3-substituted thiophene derivatives at the University of Mississippi.

**Newcomb awards.** The American Foundation for Pharmaceutical Education recently announced the 1955 Edwin Leigh Newcomb Memorial

Awards. The undergraduate award went to Miss Fenna Lee Fisher, University of Connecticut, for the essay "Carbohydrate Utilization by *Claviceps purpurea*." The graduate award was given to Dr. Sunil C. Datta and Dr. Marin S. Dunn, Philadelphia College of Pharmacy and Science, for the essay "Biological Investigation of *Polymnia uvedalia* L." The teacher-researcher award went to Dr. Stephen Kahsun Sim, University of Washington, for the essay, "A Study of the Growth and Catecholase Activity in Certain Species of *Claviceps*."

**AFPE awards.** The American Foundation for Pharmaceutical Education Board of Grants announced the allocation of \$18,000 for undergraduate scholarships in colleges of pharmacy for the 1956-57 academic year. Graduate Fellowships and Teaching Fellowships were awarded to eighty-three individuals in thirty-two institutions. The total amount awarded was \$115,000. The awards were made in the following areas: pharmaceutical chemistry(29), pharmacy(19), pharmacology(17), business administration (10), pharmacognosy(3), manufacturing pharmacy(2), hospital pharmacy(1), physical pharmacy(1), biochemistry(1).

These awards were made to the following individuals in the schools listed:

*University of California*

Walter Singer (pharm. chem.)

*University of Colorado*

Richard A. Dietrich (pharmacol.)

*University of Connecticut*

Edward S. Arnista (pharm.)

Eugene N. Greenblatt (pharmacol.)

John S. Ruggiero (pharm.)

Robert E. Singiser (pharm.)

*Yale University*

Herbert W. Felsenfeld (pharmacol.)

*George Washington University*

Gust G. Koustenis (bus. ad.)

*University of Florida*

Donald E. Cadwallader, Jr. (pharm. chem.)

Melvin P. Fisher (pharm. chem.)

Richard A. Hill (pharm.)

C. Larry Thomasson (pharm.)

Adelbert E. Wade (pharm. chem.)

*Purdue University*

Paul V. Buday (pharmacol.)

J. Richard Fennell (manuf. pharm.)

Eugene E. Hamlow (pharm. chem.)

William F. Head, Jr. (pharm. chem.)

Troy L. Kerley (pharmacol.)

William J. Kinnard, Jr. (pharmacol.)

Roger Mantsavinos (pharm. chem.)

Harry A. Smith (pharm.)

John F. Stark (pharm.)

*State University of Iowa*

Robert W. Goettsch (pharm. chem.)

*University of Kansas*

Samuel B. Britton (pharm. chem.) (1956-57 American Pharmaceutical Manufacturer's Association Award)

*University of Maryland*

Samuel Elkin (pharm. chem.)

John D. Hensala (pharmacol.) (1956-57 S. B. Penick Memorial Fellowship)

*Harvard University*

Geraldine F. Gauthier (pharmacol.)

*University of Michigan*

Eugene W. Alpern (pharm. chem.) (1956-57 S. B. Penick Memorial Fellowship)

Rupert A. Covey (pharm. chem.)

Gordon S. Dean (pharm. chem.)

Wayne A. Grim (pharm.)

Jane E. Heng (pharm. chem.)

Lewis J. Leeson (pharm. chem.)

Irwin Lippman (pharm. chem.)

Werner Lowenthal (manuf. pharm.)

Robert W. Scarbough, Jr. (pharm.)

Donald L. Trepanier (pharm. chem.)

*University of Minnesota*

Bernard Ecanow (pharm. chem.)

Gary W. Omodt (pharm. chem.)

John D. Palmer (pharmacol.)

*University of Nebraska*

Marvin H. Malone (pharmacol.)

*Creighton University*

Philip C. Ochs (biochem.)

*Rutgers University*

Marvin J. Stern (pharm.)

*New York University*

Anthony T. Buatti (bus. ad.)

*Columbia University*

Sheldon Siegel (pharm.)

*University of Buffalo*

William O. Berndt (pharmacol.)

Charles R. Boshart (pharm. chem.)

Donald B. Clark (bus. ad.)

Algirdas Gamziukas (pharmacol.)

*University of North Carolina*

George H. Cocolas (pharm. chem.)

Dominick A. Coviello (pharm. chem.)

*North Dakota Agricultural College*

Richard E. O'Neill, Jr. (bus. ad.)

*Ohio State University*

Allen I. Dines (pharm. chem.)

Albert J. Forlano (pharm.)

William G. Gorman (pharm.)

Howard J. Levin (pharm. chem.)

Arthur C. Lytle, Jr. (bus. ad.)

Glenn A. Portmann (pharm. chem.)

David J. Richman (pharmacol.)

Arnold Schwartz (pharmacol.)

*Philadelphia College of Pharmacy and Science*

Charles M. King, Jr. (hosp. pharm.)



*University of Pittsburgh*

Albert F. Wojcik (bus. ad.)

*University of Houston*

Juanita P. Horton (bus. ad.)

*State College of Washington*

William E. Johnson, Jr. (pharmacol.)

Dudley L. Phibbs (pharm. chem.)

*University of Washington*

Marvin L. Berman (pharm.)

Donald I. French (pharmacol.)

Charles W. Roscoe (pharm. chem.)

Janis O. Runikis (pharm.)

Leo A. Sciuchetti (pharmacog.)

Charles E. Wassberg (pharmacog.)

*University of Wisconsin*

Jerome I. Bodin (pharm. chem.)

Kaye Don Bowers (bus. ad.)

Robert W. Hammel (bus. ad.)

Bernard M. Israel (pharm.)

Edwin L. Knoechel (pharm.)

John R. Marvel (pharm.)

John W. Poole (pharm.)

Louis J. Ravin (pharm. chem.)

David H. Sanders (bus. ad.)

Michael A. Schwartz (pharm.)

James A. Seitz (phys. pharm.)

**School-college relations.** The following quotations from a report of the School-College Relations Committees of the American Association of Collegiate Registrars and Admissions Offices and the National Association of Secondary School Principals are worthy of thought:

... A consideration of school and college relations must center on the fact that the tidal wave of students will at least double the total college enrollment by 1970. Furthermore, the persistent increase in the proportion of school graduates who will need and will seek a college education will make the demand even greater. Therefore, all our efforts and solutions must be geared to the problems of providing these opportunities for well-guided and economical college education. Temporary and expedient solutions which in effect reduce the opportunities for an adequate college education for all qualified youth must be avoided at all costs. . . . If existing educational agencies and leaders do not provide the opportunities for college education needed by the tidal wave of students, then other agencies such as the federal government may step in and develop other patterns of meeting these needs. Likewise, there is the other danger that substandard and "fly-by-night" institutions will be able to exist and profit on this great demand for education.

... Colleges should furnish schools descriptive statements of the content, instructional procedures, and objectives of their freshman courses. Perhaps we should also urge that schools prepare similar statements for the colleges. Intervisitation between the faculties of schools and colleges is desirable and should be promoted strenuously. "Principal-freshman" conferences on college campuses are highly desirable and colleges are encouraged to use them in accordance with

the recent trends in this area.

... Schools welcome and need information on the achievement and adjustment of their students in college. In addition to grade reports, it would be ideal if colleges could send back to the schools information on the personal adjustment, activities, special honors, etc. of students after they have been in college a year or so. This information should be similar to the personal information which colleges now ask schools to furnish with the student's application for admission.

... The participants in this joint meeting felt strongly that the matter of reporting student progress, adjustment, and success in college is a complex, important, and challenging problem which should receive extended consideration during the coming year. . . .

**Ford Foundation.** The 1955 Annual Report of The Ford Foundation was issued July 1 by H. Rowan Gaither, Jr., Chairman and President of the Foundation. It covers activities in the period from October 1, 1954, to September 30, 1955, and describes a philanthropic program under which grants and appropriations totaling \$137,063,164—the largest sum in the Foundation's history—were made.

Two other major actions, which were completed after the close of the fiscal period, are included by Mr. Gaither in his President's Review because of the time they required of Trustees and staff within the year. These are the Special Appropriations of \$500 million, approved in December, 1955, to raise college faculty salaries, improve medical education, and expand community hospital services, and the diversification of assets through public sale of 22 per cent of the Foundation's holdings of Ford Motor Company common stock.

Foundation assistance, as in past years, was devoted largely to education and research in the United States. Specific purposes for which grants or appropriations were made included:

**Scholarships.** College educations for outstanding young people who might not otherwise advance beyond high school were made possible through establishment of the National Merit Scholarship Corporation. This is an independent, nonprofit organization, created jointly by the Foundation and the Carnegie Corporation to conduct annual competitive examinations among high school students and award to the winners four-year scholarships to colleges of their choice. Stipends are determined individually, on the basis of need. The first competition, held in the spring, resulted in awards to 525 students.

The Corporation was given initial funds of \$20.5 million, and is organized to accept and administer additional contributions from other philanthropies, business firms and individuals interested in supporting the national merit scholarship concept.

**Mental Health Research.** Research efforts to increase understanding of mental illness and emotional maladjustment are to be supported, for a five- to ten-year period, through an appropriation of \$15 million. First grants under this program were announced by the Foundation last week and include studies of biological, physiological, somatic, medical, social, and psychological factors in mental illness.

**International Legal Studies.** The law schools of seven universities were given grants totaling \$7,825,000 for use over a ten-year period in strengthening their teaching and research programs, with special emphasis on international legal relations and transactions. The grants also are intended to improve legal training as one aspect of developing effective leadership in

public affairs. School which received assistance are: California (Berkeley), Chicago, Columbia, Harvard, Michigan, Stanford, and Yale.

*Education for Administration.* Advanced graduate training and research in business administration was supported through grants totaling \$3,073,899. These grants represent an expansion of the Foundation's interest in increasing the number and quality of business administrators through improved teacher training.

*International Activities.* Educational assistance to a number of the countries of South and Southeast Asia and the Near East was continued through the Foundation's Overseas Development program.

Grants were made for rural development, formal education and vocational training, public administration, and economic and social research.

A second program—Increasing International Understanding—included a series of grants and fellowship awards to broaden the knowledge and competence of Americans in international relations with the same geographic areas.

The Special Appropriations of \$500 million included \$210 million to raise faculty salaries in all private, regionally accredited, four-year colleges and universities in the United States and its territories which offer degrees in the liberal arts and sciences. The sum given to each institution will be an endowment grant approximating its 1954-1955 instructional payroll.

An additional \$50 million, approved during the fiscal year, will be distributed as "Accomplishment Grants" to 126 of these institutions which have "significantly improved the status and compensation of their teachers since World War II."

Endowment grants totaling \$90 million will be made to an as yet undesignated number of private American medical schools to help strengthen their instruction to meet the widening requirements of medical practice.

The remainder of the appropriations—\$200 million—is being given to approximately 3,500 voluntary, nonprofit hospitals throughout the nation.

Grants may be used, at each hospital's discretion, for any program improving service to its community, including additional facilities or personnel, staff training, or research.

With the inclusion of these Special Appropriations, Mr. Gaither pointed out, funds committed by the Foundation for all purposes since its establishment in 1936 now total approximately \$875 million.

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*We feel pharmacy, see it, love it. We give it our lives and share with it our professional hopes, aspirations, and ideals. We work for it, cultivate it, nurse it and even fight for it in the halls of Congress. Pharmacy to us is a profession, and we try to cultivate the same viewpoint within our students.*

L. Wait Rising, *Am. J. Pharm. Ed.*, 8, 93 (1944)

## COLLEGE NEWS

**University of Arizona.** A fourteen-week, non-credit refresher course in drugstore management was presented for the pharmacists of Southern Arizona, through the University of Arizona Extension Division, under the guidance of Dr. Rex Call, Professor of Pharmacy Administration. All professorial-rank faculty members of the College participated in the teaching of the course, which was concluded on June 5.

The College was represented at the annual convention of the A.Ph.A. and Affiliated Organizations by Dean Willis Brewer and Dr. Joseph Zapotocky. The educational film, *Nalorphine Antagonism*, produced by Dr. Albert Picchioni, Professor of Pharmacology, was awarded the AACP's Audio-visual Aids Committee award.

The University of Arizona's 7th Annual Lyman Day celebration was held on April 19, at the Forty-Niners Guest Ranch near Tucson. Both faculty and students enjoyed the professional and social activities held in honor of the Pharmacy College's first dean, Dr. Rufus A. Lyman.

Dr. Vartkes H. Simonian, Professor of Pharmacognosy, addressed the Biological Sciences Section of the Arizona Colleges Association on the subject, "A Study of Certain Histological Constants of Leaf Drugs," at the annual meeting held April 21, in Flagstaff, Arizona.

On May 1, Dr. Frank Eby of Temple University, Grand-Secretary-Treasurer of Kappa Psi fraternity, and Mrs. Eby, were honored at a dinner given by alumni, student, and faculty members of the organization following an initiation ceremony.

Three faculty members of the College participated in the program of the Arizona Pharmaceutical Association annual convention held in Phoenix, Arizona, on May 6 to 8. Dr. Albert Picchioni, as President of the Arizona Society of Hospital Pharmacists, presented the annual report of the Society. Dr. Joseph Zapotocky presented an educational address on the topic, "Chemistry Can Pay Off for You." Dean Willis Brewer presented the annual report of the pharmacy college, introduced the senior class members, and served as toastmaster at the annual banquet at which Dr. Ernest McFarland, Governor of Arizona, was the guest speaker.

At the May 16, annual banquet meeting at the University of Arizona Chapter of the Society of Sigma Xi, Dr. Vartkes H. Simonian, pharmacy faculty member, was initiated into full membership.

At the commencement exercises on May 30, twenty-one graduates were awarded the degree, Bachelor of Science in Pharmacy. Mr. Lloyd Burton of the pharmacy staff received the M.S. degree and Mr. Newell Williamson Stewart, Executive Vice President of the National Pharmaceutical Council, received the honorary degree, Doctor of Science. Mr. Stewart, formerly Secretary of the Arizona Pharmaceutical Association and of the Arizona State Board of Pharmacy for many years, had served as a member of the faculty during 1950-53. He and Mrs. Stewart were honored at a dinner sponsored by the Tucson Pharmaceutical Association and the Arizona Pharmaceutical Association held at the El Conquistador Hotel immediately prior to commencement. (Joseph A. Zapotocky)

**University of California.** During the spring semester, three postgraduate seminars were held: March 11, Monterey, California, General Pharmacy Seminar; April 29, San Francisco, New Drugs Seminar; and May 19, San Francisco, Seminar on Pharmaceutical Aspects of Radioactivity. Total attendance at the three meetings was approximately 150.

A two-day Postgraduate Seminar for Pharmacists will be held on September 27, 28, and 29 at the University of California Medical Center, San Francisco.

Dr. Dong Chai, from Seoul National University, Korea, visited the School of Pharmacy during the month of May.

A group of junior and senior students from the School of Pharmacy, chaperoned by Dr. Sidney Riegelman, visited the laboratories of Parke, Davis, Eli Lilly, and Upjohn in the spring.

Dean Troy C. Daniels, Dr. Donald C. Brodie, and Dr. John J. Eiler attended the annual meetings of the American Pharmaceutical Association and related groups in Detroit in April.

Dr. Roger G. Ketcham has been appointed as instructor in pharmacy, effective July 1, 1956. Dr. Ketcham completed his graduate studies at Cornell University.

Dr. Einar Brochmann-Hanssen, Associate Professor of Pharmacy, will spend the academic year 1956-57 on sabbatical leave in Oslo, Norway, where he will study in the laboratories of Dr. A. Nordal, Professor of Pharmacognosy at the Institute of Pharmacy. (Donald C. Brodie)

**University of Colorado.** Dr. Curtis H. Waldon was appointed dean of the College of Pharmacy July 1, 1956. He succeeds Dr. Charles F. Poe who retired June 30, 1956, after serving as dean since 1946, and as a member of the faculty since 1910. Dr. Waldon received his B.S., M.S., and Ph.D. degrees from the University of Minnesota. He was a research agent for the U.S. Department of Agriculture, Bureau of Plant Industry, at the University of Minnesota from 1937 to 1941. Dr. Waldon has been a professor at Montana State University and Purdue University, and was dean of the Montana State University School of Pharmacy from 1945 to 1951. He became dean of the College of Pharmacy at the Detroit Institute of Technology in 1951, where he served as both dean and professor of pharmacology. Dr. Waldon is a member of numerous professional, scientific, and honor organizations and is well known nationally for his many contributions to the field of pharmaceutical education.

Dr. Charles F. Poe, who retired as dean of the College of Pharmacy in June with the titles of dean and professor emeritus, and Mrs. Poe have been honored on many occasions during the year. Gifts have been presented to them at meetings of the Western Slope Pharmaceutical Association and the annual convention of the Colorado Pharmacal Association. The faculty of the Department of Chemistry and the College of Pharmacy have honored Dr. and Mrs. Poe at several testimonial dinners and banquets. Dr. and Mrs. Poe will spend the summer in California visiting their children and families and then plan to return to Boulder in the fall.

Members of the pharmacy faculty attended the annual meeting of the Colorado-Wyoming Academy of Science held at the Colorado School of Mines on April 27-28. Dean Charles F. Poe served as President of the Academy for the year 1955-56, and Dr. Fred Drommond was Chairman of the Membership Committee.

Three members of the faculty and four students attended the annual meetings of the A.Ph.A. and AACP in Detroit April 8-14. Members of

the faculty and several students attended the 66th annual meeting of the Colorado Pharmacal Association held in Glenwood Springs in June. Dean Poe gave the annual College of Pharmacy progress report, and other members of the faculty served on standing or appointed committees. Mr. Mont Gutke and Mr. Gerald Leopold represented the University of Colorado on the third annual flying trip sponsored by the Colorado Pharmacal Association, and visited district meetings in Greeley, Ft. Collins, Sterling, La Junta, and Pueblo.

In observance of United Nations Week on the campus, the divisions of chemistry, pharmacy, and nursing sponsored a convocation at which Mr. James E. Bristol addressed the group on the subject "Disarmament Proposals before the United Nations." Mr. Bristol is associated with the American Friends Service Committee and is director of the Community Peace Education Program; he is well known as a speaker in the field of international affairs. (Fred G. Drommond)

**George Washington University.** Dr. W. Paul Briggs, Secretary and Executive Director of the American Foundation for Pharmaceutical Education; Harold C. Kinner, Secretary of the D.C. Pharmaceutical Association; and Franklin D. Cooper, Chief Pharmacist at the University Hospital and member of the staff of the School of Pharmacy, were panel members of the pharmacy care conference held in March. The pharmacy section was part of the University-wide Career Conference at which Senator Sparkman of Alabama was the keynote speaker.

Carson G. Frailey, Lecturer on Pharmaceutical Law, is serving his second year as president of the National Symphony Orchestra Association.

Dr. Daniel L. Seckinger, Special Lecturer in Pharmacy, has submitted his resignation as Director of Public Health, District of Columbia. The resignation has been accepted by the District Commissioners to become effective January 31, 1957.

Dean Charles W. Bliven has been elected president of the University Chapter of Sigma Xi for the coming year.

Dr. Takeo Ishiguro, Professor of Pharmaceutical Chemistry, University of Kyoto, Japan, visited the School of Pharmacy and attended the June graduation exercises.

The Pepsodent Scholarship, made available through the D.C. Pharmaceutical Association, has been awarded for the first time. Recipients for the Alpha Zeta Omega and D.C. Pharmaceutical Association Scholarships were chosen at the same time.

At a Special Convocation of the One Hundred and Thirty-Fifth Year of the George Washington University, June 20, a copy of the *General Report of the Pharmaceutical Survey* and a copy of the *Pharmaceutical Curriculum* were sealed in a "Vault for the Future." The vault, to be opened in the year 2056, contains contributions from other departments of the University and from the principal engineering organizations of the District of Columbia and the United States. The vault is located in front of the new engineering building which was dedicated during the ceremonies.

Dr. Willis E. Moore, Assistant Professor of Pharmaceutical Chemistry, gave an address on "Chemistry in Pharmacy" to the D.C. Pharmaceutical Association at their Annual Convention in Ocean City, Maryland, June 21. The two films produced under the sponsorship of the AACP through a grant from the AFPE, *Design for Life* and *Time for Tomorrow*, were shown by Dean Bliven at the Convention, June 22. (Robert M. Leonard)



**University of Florida.** Adelbert E. Wade and Jun Ho Suh received the degree of Master of Science in Pharmacy on June 4. At the same time Barry H. Dashowitz was awarded the Doctor of Philosophy degree.

An annual amount of \$700, divided into several scholarships, was recently voted by the Florida State Pharmaceutical Association to the College.

Dr. R. B. Tinker and Charles S. Haupt represented the College at the April meeting of the Southeastern Hospital Association in Miami where Dr. Tinker spoke on "Disposable Needles" and Mr. Haupt discussed revision of a hospital formulary.

Sigma Chapter of Rho Pi Phi was installed in April by the national officers, David Blackstone and Max M. Satloff; honorary members initiated included Dean P. A. Foote, Stanley Gratt, Charles S. Haupt, and Dr. Werner M. Lauter, faculty adviser.

Forty-three junior and senior students went on the educational tour of the manufacturing plants of Parke, Davis and Company and the Upjohn Company in March, accompanied by Dean and Mrs. P. A. Foote. (Carl H. Johnson)

**Southern College of Pharmacy.** Twenty-four seniors were graduated at exercises held June 8 at the First Baptist Church in Decatur, Georgia. Mr. Nelson M. Gompfer, President and General Manager of the William S. Merrill Company, delivered the graduation address. Nine seniors and three underclassmen were recipients of awards.

Mrs. Martha Jane K. Zachert, Librarian, spoke to the Georgia Academy of Science at Georgia Tech on April 14 on "The Role of the Library in Science Education." The library has published as Bibliographic Contributions #2 a compilation by Mrs. Zachert entitled *American Contributors to 17th & 18 Century Pharmacy: A Bibliography of Biographical Sources*.

Dean Melvin A. Chambers has reported the results of the physician-pharmacist relationship survey recently conducted by the College to the Georgia Pharmaceutical Association Convention in Savannah, to the Griffin, Ga., Three-D Dinner, and to the Atlanta Retail Druggists Association. Dean Chambers has also spoken to the Jackson, Ga., Kiwanis Club on "Modern Medication."

Friends of Dr. Wei-Chin Liu who has returned to China will be pleased to know that a message to the 1956 graduating class has been received from him. (Douglas Johnson)

**University of Georgia.** A Drug Store Sales Laboratory has just been completed at the School of Pharmacy. This laboratory contains a representative stock of the major items which are sold in the average drugstore with emphasis mainly on non-prescription items. It has a small prescription department used for teaching efficiency and stock arrangement. The sales laboratory is equipped with cash registers, glass show cases, rubber goods, toiletries, surgical supplies, cosmetics, etc. The sales laboratory was designed and built by a drugstore engineering firm. It is under the supervision of W. F. Dobbs, Assistant Professor of Pharmaceutical Administration. This laboratory completes a two-phase program of teaching information about products at the school. There is already established, under the supervision of Charles W. Hartman, a Model Pharmacy which contains prescription proprietaries and teaches the use of these by integrating them into the regular Senior Dispensing Course.

On May 9 the Annual Pharmacy Seminar for the state of Georgia was held. A four-point program was organized by W. F. Dobbs, who serves



both the Pharmacy School and the Extension Division of the University.

A summary of the program is given below:

Cosmetic Seminar—W. F. Dobbs, Assistant Professor of Pharmacy Administration;

Wholesalers Seminar—F. F. Millikan, Associate Professor of Pharmacy and Chemistry;

The Pharmacist's Health—S. D. Feurt, Associate Professor of Pharmacology;

Prescription Department Ideas—C. W. Hartman, Assistant Professor of Pharmacy.

Dr. Seldon D. Feurt has just returned from a trip to Ossabaw Island where he demonstrated, along with veterinary medicine and forestry, a method of capturing deer using drug-coated darts. This was the final phase of a two-year research project aimed at stocking Georgia with deer captured on the island. (Charles W. Hartman)

**Butler University College of Pharmacy.** The College of Pharmacy sponsored a Seminar on Modern Pharmacy on May 8 and 9 in the Pharmacy Building. Among the out-of-town guest speakers for the occasion were Dr. R. L. Swain, Editor of *Drug Topics*, and Mr. Wilbur E. Powers, President of the National Association of Boards of Pharmacy.

The Fourth Regional Central Indiana Science Fair was held on April 28, in the Pharmacy Building. Some 165 young scientists presented exhibits. Dr. Edward J. Rowe was the director of this event, and also attended the National Science Fair at Oklahoma City on May 10, 11, and 12.

James Grigdesby, a senior pharmacy student, was one of six pharmacy officer interns to be appointed this year to the U.S. Public Health Service. He begins active duty July 1, at the USPH Hospital at New Orleans.

Dr. Dorothy Hubbard, Assistant Professor of Biochemistry and Physiology, was initiated as an honorary member to Lambda Kappa Sigma. Initiation ceremonies were held in conjunction with a dinner on May 10.

Four students were initiated into Rho Chi. Dr. M. O. Ross, President of Butler University, was the guest speaker.

Dean Karl L. Kaufman was elected President of the International Association of Torch Clubs at their recent convention in Albany, New York. More than 250 members from 90 clubs throughout the United States and Canada attended the international convention.

Twenty-four pharmacy students received the B.S. degree and two the M.S. degree at the June commencement. On the same occasion, Dr. Edward J. Rowe, Head of the Pharmacy Department, was the recipient of the J. T. Holcomb Award of \$500, and also one of the \$500 awards from the Arthur R. Baxter Foundation. The Holcomb Award is given annually by the Board of Directors of the University for "contributing the most to the progress and welfare of Butler University during the past year"; the Baxter awards are given for "effective teaching as indicated by student interest in the subject, the clarity of presentation and the personal interest of the teacher." Also honored with Baxter awards were Dr. A. A. Harwood, Head of the Pharmaceutical Chemistry Department, and Dr. John W. Martin, Associate Professor of Pharmaceutical Chemistry.

Dr. Claude Piantadosi, Assistant Professor of Pharmacy, was the recipient recently of the Coker Award from the University of North Carolina. This award is given for the most outstanding dissertation presented for the Ph.D. degree and carries a monetary value of \$500.

At the annual inspection review of the Air Force Reserve Officers Train-

ing Corps a junior in the College of Pharmacy received the award of the Sons of the American Revolution for demonstrated leadership, scholarship, and military achievement. (Edward J. Rowe)

**Purdue University.** Dr. John E. Christian, Professor of Pharmaceutical Chemistry and Co-ordinator of the Bio-Nucleonics Research Program for Purdue University, received the 1955 Chilean Iodine Educational Bureau Award of \$1,000 at the Detroit meeting of the American Pharmaceutical Association. Dr. Christian is the first pharmaceutical chemist to receive the award in its eight-year history. The award was based on some twenty of Dr. Christian's research papers dealing with the use of radioactive iodine in medicine and pharmacy.

Adelbert Knevel, Instructor in Pharmacognosy, has been elected president of Nu Chapter of Phi Lambda Upsilon, chemistry honorary society. Gilbert Banker, graduate student in pharmacy, is the treasurer.

Paul R. Rasanen, Ph.D., '48, has been appointed group leader in charge of pharmaceutical development at Abbott Laboratories.

Dr. H. George DeKay, chairman of the Inter-Professional Relations Committee of the Indiana Pharmaceutical Association, accompanied by Henry Heine, secretary of the Association, presented a program on "Dental Prescriptions" before a combined meeting of the Floyd County Pharmaceutical Society and Dental Association.

Dr. B. N. Patel, Ph.D., '48, formerly of St. John's University has become director of Pharmaceutical research of E. Fougere and Company.

Some 159 seniors, faculty members, and their husbands and wives were entertained by Kiefer-Stewart and Company and Mooney-Mueller Ward Company at the annual senior banquet on May 21, 1956. Senior Awards were presented by Dean Jenkins. These were the Merck Award for proficiency in pharmaceutical chemistry, the Merck Award in Pharmacy, and the Bristol Award for all-around excellence. Miss Clara Henning, secretary to the dean, was given a certificate of recognition from the President of Purdue University for thirty years of loyal and outstanding service to the School of Pharmacy.

A student from South Bend, Indiana, was honored at the June, 1956, commencement exercises when Purdue University President Hovde pointed him out as the first graduate in the history of the School of Pharmacy to graduate with a perfect index of 6.0 for his four years at Purdue.

Professors Dale Blackburn, Adelbert Knevel, C. Jelleff Carr, John Data, and Gustav Cwalina attended the 5th Medicinal Chemistry Symposium of the American Chemical Society at Michigan State University, June 20 to 23, 1956.

Karen Nethery, Bebron, Indiana, Class of '58, one of the highest-ranking contestants in the National Science Talent Search, has received a Distinguished Student Award from Purdue University. The scholarship has a value of \$600.

A student from Gary, Indiana, Class of '57, has received the Borden Award of \$300 given to the best student of the Junior Class.

George J. Cosmides received his Ph.D. degree, major in pharmacology, in June, 1956, and has taken a position in the Smith, Kline and French Laboratories.

John A. Devaney, a fellow of the American Foundation for Pharmaceutical Education, completed his Ph.D. requirements in June, 1956, major in pharmacy, and has taken a position in the Product Development Laboratories of Ayerst-McKenna.

Rudolfo S. Escabi received his Ph.D. in June, 1956, major in pharmacy, and has returned to his position as professor of pharmacy, University of Puerto Rico.

George L. Stanko completed his Ph.D. requirement *in absentia* during the past year while with the Product Development Section of Abbott Laboratories and was granted the degree in June, 1956.

Dr. Bernard Levy, Ph.D., '54, has accepted a position effective July 1, 1956, as post-doctoral fellow in cardio-vascular research at the Medical College of Georgia in Augusta. This fellowship is sponsored by the National Heart Institute of the U.S. Public Health Service. Dr. Levy has been head of the Department of Pharmacology, Ohio Northern University, School of Pharmacy. (Gustav Cwalina)

**Drake University.** The College of Pharmacy held its second annual seminar on June 14 and 15. Following the pattern of the first seminar, a single topic, "Adrenocortical Drugs," was chosen and a day and a half was spent in lectures, laboratory demonstrations, and films on the topic. Dr. James R. Weeks, Professor of Pharmacology at Drake, was the principal speaker with assists from all other members of the staff.

Dr. C. Boyd Granberg, Professor of Pharmacy, is employed for the summer as a relief pharmacist in several of the Des Moines hospitals.

Dr. James R. Weeks is spending the summer on a research project sponsored by the Dow Chemical Company. (Byrl E. Benton)

**State University of Iowa.** Dean Louis C. Zopf was presented a Merit Award certificate by the Iowa Pharmaceutical Association at its annual convention which was held on June 3, 4, and 5. The award was in recognition of outstanding contributions to pharmaceutical education and to pharmacy in Iowa.

Professor Seymour M. Blaug represented the United States Pharmacopeia at the American Medical Association meeting, which was held in Chicago, with an exhibit in the Scientific Section entitled "Topical Preparations of the Pharmacopeia." The exhibit was awarded an honorable mention certificate for excellence in the dermatology section. (James W. Jones)

**University of Kansas.** The Kansas State Commission on Alcoholism has awarded grants to enable two staff members to attend summer conferences on alcoholism. Dr. Duane G. Wenzel attended the conference at the University of Utah in June. Con R. Spainhour, Research Assistant, will attend the Yale Conference in July.

Twenty-nine seniors were graduated at the annual commencement in June.

Caroll M. Smith received the Master of Science with a major in pharmacology.

Dr. C. F. Peterson attended the A.Ph.A. convention in Detroit where he presented a paper to the Section on Education and Legislation

Perry Rashleigh, graduating senior, has been awarded an exchange scholarship to the Eberhard Karls University in Tubingen, Germany.

Dr. J. H. Burckhalter has received a renewal of a U.S. Public Health Service grant for the coming year. (Raymond E. Hopponen)

**University of Maryland.** Mr. Paul A. Pumpian, Assistant Professor of Pharmacy Administration at the University of Maryland School of Pharmacy, has resigned his post to accept a position in the Patent Department of the E. R. Squibb & Sons Division of the Olin-Mathieson Chemical Company.

The Third Honors Day Convocation was held in the Westminster Presbyterian Church at 8:30 P.M. on June 6, 1956. The church, seating 800 people, was filled to capacity. The main address was given by Dr. Louis Kaplan of the Board of Regents. Dr. Kaplan spoke on "The Pursuits of Happiness," stressing devotion to one's profession, devotion to the spiritual life, and to true religion.

At the Commencement on June 9, 1956, forty-five members received the Bachelor of Science degree in pharmacy. There were also four recipients of the Master of Science degree and two recipients of the Doctor of Philosophy degree. (Adele B. Ballman)

**Massachusetts College of Pharmacy.** William E. Hassan, Jr., has resigned his position as assistant professor of pharmacology and biology to become assistant director of the Peter Bent Brigham Hospital. Dr. Hassan will remain on the faculty as associate consultant in Hospital Pharmacy.

Raymond A. Gosselin, Instructor in Pharmacy and Pharmaceutical Administration, has resigned to devote full time to market research as President of R. A. Gosselin and Company, Inc.

At the Commencement Exercises on June 6, ninety-one were awarded the degree of Bachelor of Science in Pharmacy, and eleven the degree of Master of Science in Pharmacy. Dr. Heber W. Youngken, completing thirty-three years of service to the College, was awarded the degree of Doctor of Pharmacy, *honoris causa*.

The annual Refresher Course, held on four evenings during May, was attended by more than two hundred and fifty practicing pharmacists. The featured speakers were: Dr. Sidney Farber, of the Harvard Medical School, who spoke on the chemotherapy of cancer; Dr. Samuel B. Beaser, of the Harvard Medical School, who discussed the new oral agents used in the treatment of diabetes; Dr. Peter J. Mogden, of the Boston University School of Medicine, who reviewed the cardiovascular diseases and their treatment; Mr. Wilbur E. Powers, Secretary of the National Pharmaceutical Council, who discussed the public and interprofessional relations of pharmacy; and Mr. Samuel Silverman, Executive Secretary of the Massachusetts State Pharmaceutical Association, who spoke on the need for revision of the state laws governing the practice of pharmacy.

Dr. William O. Foye and R. Charles W. Bauer are directing the research of a group of workers during the summer months in the Samuel M. Best Research Laboratory at the College. The other members of the group are Dr. John W. Schermerhorn, Dr. Raymond W. Vander Wyk, James Mickles, Ronald N. Duvall, Douglas H. Kay, Edward F. LaSala, Leo R. Fedor, Jr., Samuel Koorajian, and Melvin H. Weinswig. Grants from Eli Lilly and Company, John H. Breck, Inc., and the College support this research. (Leslie M. Ohmart)

**New England College of Pharmacy.** On May 22, 1956, the Board of Collegiate Authority of the Department of Education of the Commonwealth of Massachusetts granted the New England College of Pharmacy permission to award the honorary degrees of Doctor of Science and Master of Science.

Twenty-four students of the College were graduated at the Commencement Exercises on June 10. Honors were won by six students. Honorary degrees of Doctor of Science were given to Dr. Robert L. Swain, Dean Constantine N. Meriano, and the Honorable Peter J. Jordan.

At the recent Convention of the American Pharmaceutical Association, Dr. Sigurdur Jonsson of the faculty presented a paper before the scientific

section on "The Synthesis of Some Potential Antimetabolites." A senior student read a paper on "Cranberry Syrup" before the Student Branch Section. On April 8 to 10, the Senior Class of the College visited the Laboratories of Eli Lilly & Company. While guests of the Eli Lilly & Company, the students inspected the Research Laboratories and toured the pharmaceutical, biological and antibiotic production facilities. Dr. Coles and Mr. Frank Gonet of the faculty were in charge of the group, along with Mr. Jack L. Yudin, the Eli Lilly representative. (Herbert C. Raubenheimer)

**University of Michigan.** Dean Tom D. Rowe addressed the Ontario Retail Pharmacists' Association in Windsor, Canada on June 18, 1956.

The Michigan State Legislature has appropriated funds to the University for projects in The Research and Service in the Utilization of Human Resources. The College of Pharmacy was granted \$10,000 to study pharmacy services in small hospitals in Michigan.

The Annual Pharmacy Lectures at the College will be held this year on October 24.

A research grant was recently given by McKesson and Robbins to the College of Pharmacy in the area of pharmacy administration. The Case Method of Instruction will be explored, as well as the development of cases suitable for use in drugstore management and merchandising courses. Floyd A. Grolle, Instructor in Pharmacy Administration, is in charge of the project.

Professor Albert M. Mattocks spoke on "New and Future Products from the Manufacturer" at the Michigan State Pharmaceutical Association Convention held in Grand Rapids on June 5, 1956. (Floyd A. Grolle)

**Wayne University.** The College of Pharmacy at Wayne University is sponsoring a series of telecasts over station WTVS, entitled "Pharmacy Fax." Mrs. Jane Rogan, Special Instructor in the College, is co-ordinator of this series which is presented every Sunday evening. Prominent personalities in the field of pharmacy are invited to participate in the television programs in which, each week, a different phase of the profession of pharmacy is presented to the general public.

Ernest R. Crandall, Assistant Professor of Pharmacy and Secretary of the College of Pharmacy at Wayne University, will retire at the end of the academic year, 1955-56. This year marks the 50th year of his active practice of pharmacy. He began practicing pharmacy as a retail pharmacist in 1906.

Rho Chi Society held its annual dinner meeting on May 10. Guest speaker for the occasion was Dr. V. Everett Kinsey, Assistant Director of Research of the Kresge Eye Institute and Professor of Ophthalmic Chemistry, Wayne University College of Medicine. Dr. Kinsey spoke on "Reflections on Ophthalmic Problems."

Phi Delta Chi, Alpha Eta Chapter, held its Annual Installation Banquet on May 19. Honorary memberships were conferred on Mr. Harry Loynd, President, Parke, Davis & Company; and Mr. George Bender, Manager, Retail Sales Promotion, Parke, Davis & Company.

Miss Joyce Danielski, Class of June 1956, received the National Honor Award of the Lambda Kappa Sigma Sorority at the College of Pharmacy honors convocation on May 17. Mrs. Julia Pishalski, Grand Council Secretary, presented the award.

Dean Stephen Wilson spoke on "Current Trends in Pharmacy" at a panel discussion at a meeting of the Tri-County Pharmaceutical Association in Muskegon, Michigan on May 3. He also presented a paper on "The Retail Drug Store and the Changing Pattern of Distribution" at a District 4 meeting of the NABP-AACP, in Toledo, Ohio, March 11-12. (August G. Danti)

**University of Minnesota.** The faculty participated in the various sessions of the 72nd Annual Meeting of the Minnesota State Pharmaceutical Association April 29-May 1. Dr. Hadley, Secretary, was busy at all sessions, and he was re-installed in the same position for the ensuing year. Drs. Netz, Miller, DiGangi, and Hadley gave various committee reports. Dr. Netz organized the program for and presided over the half-day Professional Pharmacy Section. At the annual banquet two alumni were given University of Minnesota Outstanding Achievement Awards by President Morrill.

On April 30, at the State Capitol Building in St. Paul, Dr. Netz represented pharmacy on a panel of speakers commemorating the Centennial of passage of Federal Food and Drug Laws.

G. Krishnamurty, Ph.D. (now at University of Illinois), was elected to Sigma Xi Society on May 29.

During April 10-12, a "Careers Festival" was staged at the St. Thomas College Armory (St. Paul). Over 5,000 high school seniors and college freshmen from the metropolitan and rural areas paraded through the 80 exhibits and talked to personnel representatives. Pharmacy was housed with the health professions group, and Drs. Hadley, Fischer, and White served as counselors.

Pharmacy Day was celebrated on campus on May 15. Golf in the morning was followed in the afternoon by softball and a buffet supper served at Como Park.

On April 17, Dr. Netz talked to a group of Minneapolis high school seniors and conducted them through the building.

Professor Tracy Call (University of Montana) received a Ph.D. degree (major: pharmacognosy) at the June commencement exercises. Professor Jack McNamara, Captain, MSC, received an M.S. degree.

On May 28, Mr. J. B. Kahn, President of the Ar-Ex Products Company of Chicago, lectured to the senior class on hypo-allergenic cosmetics.

During May, Mr. Carl Hallin, CPA, gave a series of lectures to the seniors covering advantages of the various types of business organization and accounting procedures for reporting federal and state taxes.

On June 13, Dr. Netz attended a Symposium on Cosmetics, sponsored by the Committee on Cosmetics of the American Medical Association and held in Chicago.

On June 9, at the University Commencement Exercises, thirty-three seniors received their B.S. degrees. Eleven of the group were also commissioned as second lieutenants in the Medical Service Corps of the U.S. Army.

On May 25, Dr. Dong K. Chai, Associate Professor of Pharmacy at Seoul University, visited the College to inspect its facilities and talk to the faculty.

At various times during the month the Senior Class was the guest of McKesson and Robbins, Inc., Northwestern Drug Company, and the Minnesota State Pharmaceutical Association, for luncheons at downtown hotels.

Dr. Charles O. Wilson of the University of Texas and family were welcome visitors during the week of June 4. (Charles V. Netz)

**St. Louis College of Pharmacy and Allied Sciences.** President Robert L. Lund, who has been ill for the past year, resigned from the presidency in April. Vice-President Orval J. Cloughly was elected to succeed him.

Dean Schlichting was named "Man of the Year" by the Alumni Association of the College of Pharmacy of the University of Kansas City at the 78th Annual Convention of the Missouri Pharmaceutical Association.

Our Ninety-Third Commencement Exercises were held in the College



Auditorium on June 7. Forty-nine graduates received the B.S. in Pharmacy degree, four the M.S. in Pharmacy. Seven others completed the requirements for the M.S. at the end of the 1955 summer session and at mid-year, as did three candidates for the B.S. Six scholarships and seven prizes were awarded. Twenty-six students from all classes received Honorable Mention. Dr. Hal G. Johnson, Director of Development, Monsanto Chemical Company, delivered the commencement address.

Dr. Alfred C. Scott, Class of 1932, General Sales Staff Manager of the Upjohn Company, was the chief speaker at the Commencement Banquet at Hotel Kingsway. Four members of the Class of 1906 and twenty-one of the Class of 1931 were guests of honor.

Seventeen members were initiated into Beta Kappa Chapter of Rho Chi at the Initiation Banquet at the Forest Park Hotel on May 29. Associate Dean Thayer was the speaker.

Jack L. Cross, Assistant Professor of Pharmacy Administration, on June 6, received the degree of Master of Business Administration from Washington University, St. Louis, Mo.

The Meyer Brothers Drug Co., on May 3, presented a gift of one thousand dollars to our Endowment Fund. (Walter Rist)

**University of Kansas City.** Dean Eisenbrandt spoke to a meeting of the Professional Men's Club on May 25, 1956. His topic was "The Past, Present, and Future of Pharmacy." The Alumni Foundation of the University of Kansas City School of Pharmacy met on June 7, 1956. The group voted money to the various divisions of the Pharmacy School to further subsidize the research being carried on there. Dr. Samuel T. Coker has been appointed associate professor of pharmacology. He earned his doctorate at Purdue University, and he has taught pharmacology and physiology at the University of Pittsburgh and the University of Mississippi. His appointment will be effective September 1, 1956. (William J. Rost)

**University of Nebraska.** Dean Joseph B. Burt has been elected, for a six-year term, to membership on The American Council on Pharmaceutical Education, as a representative of the American Association of Colleges of Pharmacy. His term begins July 1, 1956.

Dean Burt was awarded honorary membership in Kappa Psi at a meeting of the fraternity held in Detroit, Michigan, in conjunction with the annual convention of the American Pharmaceutical Association. The presentation of the honorary membership certificate was made by Dr. Louis Fisher, Professor of Pharmacy at the University of Washington and Grand Regent of the Fraternity.

For the second consecutive year Beta chapter of Kappa Epsilon has won the national scholarship award. The chapter average was 3.16 with 4.00 being the highest grade possible. Also for the second consecutive year, Miss Pearl Bremer, president of Beta chapter, is one of the national individual award winners, the other winner being Mrs. R. C. Willeke of Epsilon chapter, Ohio State University. Both girls had a 4.00 average for the two semesters covered by the report.

On April 19, the senior class inspected the manufacturing plant of the Smith-Dorsey Division of the Wander Company, and on May 1, they visited the Lincoln Drug Company, wholesalers.

At the annual meeting of the Nebraska Pharmaceutical Association held at Grand Island, April 22-24, a panel discussion was carried out jointly by the A.Ph.A., Student Branches of the University of Nebraska, and Creighton



University. William G. Clayton, Grand Island, was moderator of the discussion of "Re-evaluation of Apprenticeships." W. M. Fleming, Norfolk, and W. L. Keitges, Omaha, represented practicing pharmacists. Representing the University of Nebraska were Dr. L. D. Small and Rodney L. Einspahr. Representing Creighton University were Professor Ann Czerwinski and Richard C. McGaughey.

At the annual banquet of the College of Pharmacy, sponsored by the Student Branch of the A.Ph.A., the following awards were presented by Dean Burt: the Lehn and Fink Medal, the Merck Senior Award, the Merck Junior Award, and the Bristol Award. A special feature of the program was the recognition of Dr. H. G. O. Holck, Professor of Pharmacology and Acting Chairman of the Department, whose retirement becomes effective September 1, 1956. Following his retirement, Dr. Holck will serve as a pharmacologist on the staff of the Institute of Cellular Research which is supported by a grant from the U.S. Public Health Department for a study of the effects of air pollution upon living tissue.

Dr. Holck has received a \$150 grant from the University of Nebraska Research Council to complete his study of certain effects of antabuse on the albino rat. Dr. V. E. Tyler, Jr., Chairman of the Department of Pharmacognosy, received an \$850 faculty summer research fellowship from the Council to study the biosynthesis of gramine in excised barley roots. (Phyllis Platz)

**Rutgers University.** The Fifth Annual Rutgers Pharmaceutical Conference took place on the New Brunswick campus on May 9, 1956. Speakers at the conference, which was attended by several hundred people from all areas of the profession, included Dr. Austin Smith, Editor of the Journal of the American Medical Association; Dr. Chester S. Keefer, Professor of Medicine, Boston University; Leo Cherne, Executive Director, the Research Institute of America; H. M. Poole, Jr., Vice President, Johnson & Johnson; Henry S. McNeil, President & Director, McNeil Laboratories Inc.; Dr. George Archambault, Pharmacist Director, U.S. Public Health Service; Louis Stritzler, Vice President, National Association of Retail Druggists; Thomas D. Yutzy of the public relations firm of Dudley, Anderson, and Yutzy. Mr. Philip Wittcoff, Detective, New Jersey State Police Narcotic squad, addressed a large group at the college on April 18, 1956. Mr. Wittcoff, a graduate of the Class of 1933, spoke on the subject "Responsibility of Pharmacists in Narcotic Medications." Five faculty members and four members of the Student Branch of the A.Ph.A. attended the convention at Detroit where both faculty and students presented papers and attended committee meetings.

The faculty was also well represented at the annual meeting of the New Jersey Pharmaceutical Association at Atlantic City in June. Dean Bowers addressed the convention, informing the body of the proposed transfer of the College of Pharmacy from Newark to the main campus at New Brunswick. The Convention Number of the *New Jersey Journal of Pharmacy*, distributed at the meeting, contained two papers by members of the faculty. One by Dr. James Kearns, Professor R. George Kedersha, and a senior student, Murray Weinstock, dealt with the history of the pharmacy internship program in the state of New Jersey. Another, by Dr. Morton J. Rodman, discussed the dangers to the public of drug distribution by non-pharmaceutical outlets.

Mr. Anthony Taraczka, a senior student at this school, was the recipient of the Lunsford Richardson Award of \$1,000 for a paper on a piece of

original pharmaceutical research done under the guidance of Professor Arnold Marcus. This is the second consecutive year in which a senior student working under the guidance of a member of the Pharmacy Department has taken first place in this national competition sponsored by the Vick Chemical Company. The College, on each occasion, has also received an award of \$1,000.

Professor Michael Iannarone was honored by the Pharmacist's Guild of New Jersey at a dinner on April 8, at which he was cited for his contributions to the profession, including his recent research award from the Chilean Iodine Foundation.

Professor Pierre F. Smith, completed a two weeks tour of duty as a Lieutenant in the Medical Service Corps of the U.S. Naval Reserve. He worked on problems of submarine medicine at the Medical Research Laboratory of the U.S. Naval Submarine Base at New London, Connecticut.

Papers by faculty members appearing recently in the non-pharmaceutical press include: (1) "Mink Oil—Some Chemical and Physical Characteristics" by Dr. John M. Cross in *Drug and Allied Industries*, September 1955. (2) By Dr. Morton J. Rodman in *R. N.—A Journal of Nursing*: "Acne—an Adolescent Problem" (April); "Muscle Metabolism" (May); "Itching—Physiology and Treatment" (June).

Most members of the faculty attended the final meeting of the Northern New Jersey Branch of the A.Ph.A. in May. The speaker at this dinner meeting was Mr. Andrew Salvest, Deputy Attorney General, who has worked closely with the State Board of Pharmacy in prosecuting violations of the state pharmacy act. Mr. Salvest's topic was "My Experience in Handling Legal Problems of State Professional Boards." (Morton J. Rodman).

**University of New Mexico.** Dr. Hugh C. Ferguson, Assistant Professor of Pharmacology, spoke to the Tuesday afternoon session (June 12) of the New Mexico Pharmaceutical Association during the State Convention. Dr. Ferguson spoke on the new ataractic drugs. His talk was very well received by the audience. (George L. Baker)

**Fordham University.** The Beta Xi Chapter of Rho Chi was installed in the College of Pharmacy on May 10, 1956, at a dinner meeting at the Concourse Plaza. Dr. Roy A. Bowers, Dean of Rutgers College of Pharmacy and President of Rho Chi, was the installing officer. Charter responsibilities for the Beta Xi Chapter were accepted by the president of the chapter. Dr. Albert J. Sica accepted for the University. Faculty members who were inducted included Dr. Sica, Alfred J. White, Associate Professor of Pharmacy Administration; Ross J. Marano, Associate Professor of Pharmacology; Vincent C. Anselmo, Instructor of Pharmacy and Pharmacal Chemistry; William Diamantis, Instructor of Pharmacognosy and Pharmacology; Joseph J. Setaro, Jr., and Dominic A. Solimando, both instructors in pharmacy. Eleven students were inducted.

Members of the Class of 1956 were inducted into the Alumni Association at a meeting held at the College of Pharmacy on June 6, 1956. Edward Easton, president of the association, welcomed the new members, spoke briefly on the values of active participation, and gave to each member an engraved certificate of membership.

Members of the Class of 1956 received their B.S. in Pharmacy degrees at the unified commencement exercises of the University held at 4:30 P.M., Wednesday, June 13, 1956, on the terrace of Keating Hall. His Eminence Francis Cardinal Spellman presided. Awards given students included the

Alumni Memorial Prize, the Bristol Award for the highest average in pharmacology, the Bronx County Pharmaceutical Association Prize for the highest average in pharmacy, the Jacob Diner Prize for the highest average in all subjects, the New York State Pharmaceutical Association Award for the second highest average in all subjects, the Ganbarg Prize to the student approaching most closely the ideal pharmacist, the Merck Award for the highest average in pharmaceutical chemistry, the Merck Award for the highest average in dispensing pharmacy laboratory. A special award of a gold watch in honor of the late Dr. Conroy, for the highest average in all chemistry subjects, including pharmaceutical chemistry, was also awarded. (Alfred J. White)

**Long Island University.** Dr. Arthur G. Zupko assumed the post of dean of Brooklyn College of Pharmacy on July 1, 1956, after having served as associate dean for the past year with retiring Dr. Hugo H. Schaefer, who has been named dean emeritus.

Dr. Paul Olsen will join the college in 1957 as professor of pharmacy administration and chairman of the department. Dr. Olsen will launch a graduate course in pharmaceutical administration leading to the Master's Degree and finally to the doctorate.

As part of the plans of the new dean and the college Board of Trustees to expand and broaden the function of the school, Mr. John J. Mullen has been retained as public relations director. Mr. Mullen, a former newspaperman, was recently associated with Physicians News Service and *Scope Weekly* through the McAdams organization in New York City. He also was associated with the research division of the National Council of Churches.

Brooklyn College of Pharmacy graduated 112 students on June 8.

Dr. Hugo H. Schaefer was awarded an honorary degree of Doctor of Laws by Long Island University on June 8.

A new laboratory in microbiology is being completed at the college and will be ready for use in September.

Dean Zupko, Dean Emeritus Schaefer, and Professors Berl S. Alstodt and Philip Blank attended the New York State Pharmaceutical Association meeting at Saranac, N.Y., during the week of June 10.

Dean Zupko attended the Teachers of Pharmacy Administration Seminar sponsored by the AACP at Austin, Texas, during the week of July 22.

Dr. Cosmo Ligorio, Professor of Chemistry and Physics, is taking a special course at Oak Ridge during the month of August.

Dr. James Ingalls, Associate Professor of Pharmacology, has received a research grant from the Pfeiffer Memorial fund.

The passing of Samuel Rubinton, Attorney and Honorary Trustee for Brooklyn College of Pharmacy, saddened his numerous friends. Mr. Rubinton, graduate of New York York Law School and legal adviser to many large institutions and companies, died on April 26. He was 65 years old.

A research grant for the investigation and synthesis of o-thymotic acid sulfur derivatives has been awarded to Dr. Donald Urdang, Assistant Professor of Pharmacy. The grant-in-aid was given by the Research Corporation and is to be designated as a Fredrick Gardner Cottrell Grant. (Berl S. Alstodt)

**University of Buffalo.** The Annual Spring Clinic was conducted by the University of Buffalo School of Pharmacy and its Alumni Association at Hotel Statler, Buffalo, New York, April 26, 1956. The day's program was opened by Marvin B. Carrel, President of the Alumni Association. Dr. John W. Kleber of the Clinic Program Committee acted as Chairman of

the Clinic Program. Edward Tarloski, Secretary of the New Jersey State Board of Pharmacy, discussed the efforts being made by the New Jersey Board of Pharmacy in its attempts to keep the sale of drugs in the drugstore. He stated that constant vigilance is needed to prevent the circumvention of current laws or have such laws changed, thus jeopardizing the public health by sale of drugs in general stores and supermarkets. A panel of three pharmacists differed in their opinions about items other than drugs to be carried in drugstores. Mearl D. Pritchard, prominent Buffalo professional pharmacist, stated that at least 51 per cent of the floor space of a pharmacy should be devoted to drugs, prescriptions and related items. Jack Weinstein, managing Director of Lee's Drug Stores Inc., said that most pharmacies average about 26 prescriptions a day. He felt that this would produce insufficient revenue, and, therefore, extra merchandise must be carried if the pharmacist is to stay in business. John F. O'Brien reviewed the recent New York State session of the legislature which produced nothing of interest to the profession of pharmacy. A panel of physicians gave an evaluation of many of the newer drugs. It was their joint opinion that far too many drugs are appearing today. Many are potent and dangerous, and, unless used with caution, may produce undesirable side actions. They described the promiscuous use of such drugs as penicillin, cortisone, tranquilizers, and steroid drugs. New drugs must stand the test of time and must not be considered modern cure-alls. David D. Stiles, Director of Market Development for the Abbott Laboratories, explained his method for keeping up a continuous analysis of the use of proprietary drugs throughout the United States. He stressed variations in prices of prescriptions in different stores and in different areas of the country. Senator Earl W. Bridges, speaking at the Alumni Dinner, stated that potentially dangerous drugs and medications should never be used, sold, or displayed by anyone save a licensed pharmacist. The sale by unlicensed dealers only breeds contempt for hazards.

In memory of one of the pioneers of the University of Buffalo School of Pharmacy, the Willis G. Gregory Memorial Award was established in 1931. This award is made annually to some outstanding pharmacist of Western New York who "personifies the ideals of professional integrity and service." This year's award was made to Austin M. Johnston of Binghamton, N.Y. Mr. Johnston graduated from the University of Buffalo School of Pharmacy in 1916. Since then he has held important offices in local and state pharmaceutical organizations. He retired from practice in 1951. In 1955 he was appointed Secretary of the New York State Board of Pharmacy, a position which he currently occupies. (Laurence D. Lockie)

**University of North Carolina.** Roger H. Sloop is the Southern Regional winner of the Lunsford Richardson Award of \$1,000, based upon his writing, "Evaluation of Gastric Antacids." He is the second consecutive award recipient from North Carolina.

Claude Piantadosi won the 1956 Coker Award of the Elisha Mitchell Scientific Society for the best graduate research dissertation at the University of North Carolina. The subject of his thesis is "The Chemistry of Acetals and Esters of Glycerol."

Ben F. Cooper, F. C. Hammerness, Robert W. Meschke, and Claude Piantadosi received Ph.D. degrees at the June commencement.

Donald Miller was elected chairman of the A.Ph.A. Student Branches of the Detroit Convention.

The Ninth Annual Justice Drug Company Banquet, honoring the thirty-

eight graduating students was held recently; wives, faculty and State Association officers participated.

The annual lecture sponsored by the Rho Chi Chapter was presented on April 25, by Dr. Hubert W. Murphy of the Research Division of Eli Lilly Company; the subject of his presentation was "Some Aspects of the Chemistry of Erythromycin."

Dr. John Andrade has resigned to accept an appointment to the staff at Medical College of Virginia.

Dr. Herman O. Thompson addressed the nurses of the Durham City and County Boards of Health on the subject, "Tranquilizers and Euphoricants."

"Careers in Pharmacy" was the subject of a program for the information of high school students, presented over the educational station WUNC-TV. Participating in the presentation were Dean Brecht, Professors Cooper, Hamneress, and Semenik, State Association Secretary W. J. Smith, State Board Secretary H. C. McAllister, and two student-body members. (Fred T. Semenik)

**North Dakota Agricultural College.** Mr. Richard E. O'Neill, Jr., has been awarded a teaching fellowship in business administration by the American Foundation for Pharmaceutical Education. (Clifton E. Miller)

**Ohio State University.** Dr. Frederick C. Blubaugh has resigned from the faculty to take a position with Eli Lilly and Company.

Dr. Jack L. Beal addressed the Ohio State Plant Institute, April 23, on the subject, "Romance of Plant Drugs."

Dr. Rupert Salisbury attended the Akron Area Hospital Pharmacists' Students' Seminar, May 8-9 in Akron.

Dr. Loyd E. Harris was the installing officer on May 15 of Beta Nu Chapter of Rho Chi Society in the University of Cincinnati College of Pharmacy.

Dr. Arthur Tye, on May 17, addressed the Southeastern Ohio Pharmaceutical Association on the subjects "Adrenal Corticoids in Degenerative Diseases" and "Anti-hypertensives in Cardiovascular Disease."

Drs. John W. Nelson and Arthur Tye gave two sessions of a refresher course on pharmacology at the Stark County Pharmaceutical Association meeting in Canton, Ohio, on June 6.

Dr. Loyd E. Harris was a guest of the Licking County Pharmaceutical Association on June 7.

Dr. Jack L. Beal was presented an honorary membership key of Rho Pi Phi by the Cleveland Alumnae on June 13, in Cleveland, Ohio.

Dean Lloyd Parks and Dr. Loyd E. Harris attended the convention of the Ohio State Pharmaceutical Association on June 18 and 19.

Mrs. Loyd E. Harris and son Ronald are touring Europe this summer. During the last week of the tour Mrs. Harris plans to visit her daughter, granddaughter, and son-in-law who is stationed in the Army at Mannheim, Germany. (Jack L. Beal)

**University of Oklahoma.** Dr. John B. Bruce, Associate Professor of Pharmacy, attended the meeting of the Tulsa section of the American Chemical Society on April 3 at the University of Tulsa. Following this meeting, Dr. Bruce attended the National American Chemical Society meeting held in Dallas on April 9-12. Over 4,700 chemists attended this meeting which was one of the largest ever held. The medicinal chemistry section was quite well represented, and interest in this field was quite evident.

Mr. Ernest Hall, federal narcotic agent for the Western Oklahoma district, was guest speaker in Miss Jean Brown's senior class in pharmacy administration. Mr. Hall spoke on "Narcotics" and the pharmacists' responsibilities in dealing with these dangerous drugs. Miss Brown's class also attended, with all other students of the College of Pharmacy, the Career Conference lecture delivered by Mr. Walter Cousins of Texas, on April 18. Mr. Cousins, Editor and Publisher of the *Southern Pharmaceutical Journal* and Secretary of the Texas State Board of Pharmacy, discussed the pharmaceutical industry with special emphasis on retail pharmacy. Mr. Cousins also appeared as guest speaker for Rho Chi initiation and dinner the evening of April 17.

A University of Oklahoma College of Pharmacy senior has been awarded the \$50 scholarship made available by the generous gift of the Southwestern Drug Corporation, Dallas, Texas.

Dr. Ralph Bienfang, Professor of Pharmacognosy, was invited by Mr. Bob Hurd, Shawnee, president of the local district of druggists, to be guest speaker at their meeting on April 19. Dr. Bienfang's talk was entitled, "Pharmacist Gnafeib Revisited—A Fantasy," a sequel to one of his earlier talks, "Pharmacy in 1976—A Trip to the Future."

Dr. John Bruce and Miss Jean Brown served as judges at the Science Fair which was held at the University of Oklahoma on April 19.

The outstanding senior woman in the College of Pharmacy presented a beautiful blue, white and gold A.Ph.A. banner to the student branch of the A.Ph.A.

On April 24, Dean and Mrs. Clark were the guests of the University of Mississippi School of Pharmacy where Dean Clark had been invited to be moderator of a Pharmacy Conference. The theme of the Conference was "The Growth of Pharmacy." Dean Clark also spoke on two subjects: "How We Will Sell Pharmacy to the Public," and "Pharmacy Twenty-Five Years Hence."

Dean Clark and Dr. Bienfang reported upon their return from the national A.Ph.A. meeting in Detroit that a paper, "Drug Addiction: Addiction by Escape Training," authored by John R. Nichols, Ph.D. candidate in the Oklahoma University Department of Psychology, Dr. Cecil P. Headlee, and Dr. H. W. Coppock was presented at the meeting and was very well received. The research work leading to the paper was done at the Oklahoma University College of Pharmacy.

During May, Professor Jean Brown's senior class in pharmacy administration had as guest speakers Professor Leslie Rice of the Oklahoma University School of Journalism who spoke on advertising; Mr. Pat Henry of the Southwestern Drug Corporation, Dallas, who also spoke on "Advertising for the Retail Drug Store"; General Hal Muldrow, Norman, who spoke on insurance; Professor D. L. Barnes of the Oklahoma University Accounting Department who spoke on taxes and records; Mr. J. C. Cobb, Secretary of the Oklahoma State Board of Pharmacy who discussed problems concerning licensing of pharmacists; and Mr. E. R. Weaver who gave the background and functioning of the Oklahoma Pharmaceutical Association.

On May 7, Dr. Harold A. Shoemaker, Professor of Pharmacology at the Oklahoma University School of Medicine, Oklahoma City, addressed the senior class of the College of Pharmacy. His topic was "Toxicology."

Professor Jean Brown and Dean Ralph W. Clark served as Host Scientists at the Awards Banquet sponsored by the Oklahoma City Chamber of Commerce and the New Frontiers Committee. The dinner honored the na-



tion's top high school age science students competing in the 1956 National Science Fair held in Oklahoma City May 10-12.

Dean Clark appeared as guest panelist on the TV program, "The Open Window," produced by Dr. Sherman P. Lawton of the Oklahoma University Department of Speech. The program was televised by WKY-TV, Oklahoma City, on Saturday, May 12.

Dean Clark was invited on May 16 to speak to the second-year class of the Oklahoma University School of Medicine. His subject was "Physician and Pharmacist Relationship." He suggested that each group be guided by its special talents to avoid getting into the other's area of activity.

Miss Jean Brown, who serves as adviser to all freshmen pre-pharmacy students, has been elected to be the College of Pharmacy representative on the University College Council.

The Senior Class surprised the faculty members by presenting them with beautiful tie clasps and cuff links engraved, "Class of '56."

Dr. W. Marvin Davis, Assistant Professor of Pharmacology, has received a grant from the Oklahoma University Faculty Research Committee to conduct a research program to test the effect of Meproamate on the learning rate of rats in an anxiety-motivated learning situation.

Dean Clark was honored by an invitation to deliver the "Little Commencement" address at the College of Pharmacy at the University of Texas on June 2. His subject was "Pharmacy's Greatest Need." (Ralph W. Clark)

**Philadelphia College of Pharmacy and Science.** More than 300 graduates attended the Spring Alumni Reunion Dinner at the Drake Hotel in Philadelphia on May 12. Alumni Awards were given to Dr. Robert P. Fischelis and to Dr. Edward J. Hughes. Edmund H. MacLaughlin was installed as new president of the Alumni Association. Special honors were given the members of the Class of 1906 with the awarding of Semicentennial Certificates.

At the 135th Commencement Exercises on June 11, 160 undergraduate and graduate degrees were granted in four sciences: bacteriology, biology, chemistry, and pharmacy. President Ivor Griffith officiated. Honorary degrees of Doctor of Science were granted to Dr. Emil Klarmann, Dr. Morris C. Matt, and Dr. William E. Hanford.

The parenteral products course conducted during the period June 18-29 was attended by twelve hospital pharmacists from all over the country. (John E. Kramer)

**Temple University.** Dean Joseph B. Sprowls attended the convention of the Pennsylvania Pharmaceutical Association in Pittsburgh July 15, to 18 and reported for the Committee on Education. Dr. A. J. Vazakas also attended the convention and participated in a panel discussion involving anticipated changes in pharmaceutical education in the next twenty-five years.

S. Walter Foulkrod, Jr., spoke recently to several County Association Meetings and discussed the new Pennsylvania Dangerous Drug Act.

Dean Joseph B. Sprowls spoke recently at the Bethesda National Institute of Health, to the Washington, D.C., Association of Hospital Pharmacists, and to the local branch of the American Pharmaceutical Association. The topic was "Some Applications of Basic Knowledge of Pharmacy."

Dr. Herbert M. Cobe will attend the meeting of the Pathological Society of Great Britain and Ireland at the University of Manchester July 12 to 14.

Carson Frailey, Jr., represented Temple University at the Eighth Annual Teachers' Seminar Pharmacy Administration Program at the University of Texas July 22 to 27.



Samuel Elkin, Instructor in Chemistry, has been granted a leave of absence of one year during which time he will attend the University of Maryland.

The faculty welcomes back Dr. Arthur E. James, Professor of Inorganic Chemistry, from the University of Peshawar in Pakistan where he had been lecturing and conducting research under a Fulbright Grant.

Professor John A. Lynch, recently installed as vice president of the Philadelphia Branch of the American Pharmaceutical Association, attended a meeting of the Public Relations Committee of the A.Ph.A. in Washington, D.C., on June 21. Final plans were formulated for National Pharmacy Week October 7 to 12.

Dr. Frank H. Eby traveled to Cincinnati, Ohio, to attend meetings of the National Conference on College Fraternities and Societies, and meetings of the Inter-fraternity Research and Advisory Council on May 11, 12, and 13. Dr. Eby was recently installed as president-elect of the Professional Inter-fraternity Council.

The close of the semester saw two projects completed under grants from the Armed Forces Medical Procurement Agency in the area of product stabilization. The two problems were directed respectively by Dr. John Autian and Dr. A. J. Vazakas.

A grant from the Tobacco Research Foundation was used to study the effect of tobacco smoke and smoke residues on tumor growth produced by known carcinogens. The study was conducted by Dr. David Mann and Graduate Assistant Joseph Shanfeld.

At graduation exercises a Bachelor of Science degree was bestowed upon each on the ninety-eight graduates. Master of Science degrees were awarded to four students. (Fred B. Gable)

**University of Pittsburgh.** In attendance at the recent convention of the American Pharmaceutical Association were Dean Edward C. Reif; Dr. Robert W. Sager, Professor of Pharmacy and a member of the AACP recruitment committee; Dr. Edward P. Claus, Professor of Pharmacognosy and Secretary-Treasurer of the Conference of Teachers; Dr. Joseph P. Buckley, Associate Professor of Pharmacology, who presented a paper, "A Pharmacological Investigation of Certain Acetylenic Carbinols," to the A. Ph.A. Scientific Section; and Mr. William L. Blockstein, Chairman of the Joint AACP-ACPRA Committee on Public Relations in Pharmaceutical Education.

William L. Blockstein presided at the meeting of the professional relations committee of the Pennsylvania Pharmaceutical Association at its April meeting in Association headquarters in Harrisburg.

The University of Pittsburgh School of Pharmacy has received a grant of \$2,386.80 from Hoffman-LaRoche, Inc., of Nutley, New Jersey, for an investigation of certain derivatives of thiamine. The study will be conducted under the direction of Dr. Joseph P. Buckley, Associate Professor of Pharmacology.

Miss Dorothy Nuttall, Librarian of the School of Pharmacy, participated in a local capacity, as well as attending meetings of the Pharmaceutical and Science and Technology Sections, when the national convention of the Special Libraries Association was held at the William Penn Hotel in Pittsburgh the week of June 4. Visiting librarians of other pharmacy schools inspected the libraries of the Pitt School of Pharmacy and that of Duquesne University.

Dr. John J. De Feo and Registrar Ann F. Zilonis accompanied members

of the Senior Class of the School of Pharmacy on the annual plant visitation to Parke, Davis and Company laboratories.

Dr. Joseph D. McEvilla and five members of the Junior Class of the School of Pharmacy toured four Akron (Ohio) hospitals as guests of the Akro Area Society of Hospital Pharmacists.

William L. Blockstein discussed "Your Public Relations" before a one-day conference of the West Virginia Pharmaceutical Association at the Hotel McClure, in Wheeling, West Virginia, on June 24, 1956. The address was followed by an open forum on the general topic of public relations.

Dr. Joseph D. McEvilla will serve as a faculty member at the Teachers' Seminar on Pharmacy Administration held at the University of Texas, in Austin.

Mr. John A. McCartney, a 1923 graduate of the School of Pharmacy, was installed as President of the American Pharmaceutical Association at the Detroit convention.

At graduation exercises held at the University of Pittsburgh, three 1954 graduates of the University of Pittsburgh School of Pharmacy received the M.S. degree: Vincent Stephen Venturella, in pharmacy; William J. Hudak and Fred M. Schalit in pharmacology. Mr. Schalit was a George A. Kelly, Sr., Fellow; Mr. Venturella and Mr. Hudak are graduate student assistants.

Raymond E. Dessy, a 1953 graduate of the School of Pharmacy, who compiled a perfect 3.0 record as an undergraduate, received the doctor of philosophy degree at the June 13 commencement. His major field was chemistry. Dr. Dessy has accepted a post-doctoral fellowship at the Ohio State University. (William L. Blockstein)

**Medical College of South Carolina.** At the South Carolina Pharmaceutical Association convention, held in Charleston June 18 and 19, the Geer Drug Company announced the establishment of twelve, two-hundred dollar, annual scholarships for pharmacy students. These will be divided equally among the classes. (Wm. A. Prout)

**University of Texas.** About fifty-five seniors graduated with the B.Sc. degree at the close of the spring semester. Dean Ralph Clark of the University of Oklahoma College of Pharmacy was the commencement speaker at the special exercises, and his topic was "Interprofessional Relationship."

Enrollment in pharmacy for the Summer Session numbers about two hundred students.

Dr. C. O. Wilson, Professor of Pharmaceutical Chemistry, and family are vacationing in Minnesota among friends and relatives this summer.

Sixty-five hospital pharmacists from 24 states attended an institute for hospital pharmacists conducted on the University campus during the week of June 17. The institute was sponsored by the Texas Society of Hospital Pharmacists and the Texas Hospital Association.

Thirteen students were initiated into Nu Chapter of the Rho Chi Society on April 26. Dr. Alfred Taylor of the Biochemical Institute addressed the group on the subject, "Progress and Problems in Cancer Research."

The following members of the staff attended the convention of the American Pharmaceutical Association in Detroit on April 8-10: Mrs. E. J. Hall, Dr. C. O. Wilson, Dr. W. J. Sheffield, Dr. W. R. Lloyd, and Dean H. M. Burlage. Papers were presented by Mrs. Hall, Dr. Wilson, Dr. Sheffield, and Dr. Lloyd.

Dr. W. R. Lloyd, Associate Professor of Pharmacy, has prepared a color film strip with sound tape for use in the recruitment of high school stu-

dents for pharmacy. The film is available to alumni, civic clubs, and other groups or individuals who wish to use it.

Dr. C. O. Wilson, Professor of Pharmaceutical Chemistry, and Dr. J. E. Davis, Professor of Pharmacology, addressed the local chapter of the Academy of General Practitioners recently on the subjects of antihistamines, hypotensive agents, and coronary vasodilators.

Walter Kuntz, Vice-President and General Manager of the Houston Division of the Southwestern Drug Corporation, addressed the freshmen students recently on the opportunities of pharmaceutical wholesaling.

The College of Pharmacy is looking forward to entertaining the Conference of Teachers of Pharmacy Administration, which will be held on the University Campus during the last week in July. Arrangements are under the direction of Mr. Joe H. Arnett of the Pharmacy Extension Service. (Carl C. Albers)

**Medical College of Virginia.** Dr. John W. Boenigk has resigned from the staff of the school of pharmacy as of July 1, 1956, and will assume his duties with the school of pharmacy at the University of Pittsburgh at that time.

Dr. R. Blackwell Smith, Jr., Dean of the School of Pharmacy, will assume the office of President of the Medical College of Virginia on July 1. He will be the recipient of the "Pharmacist of the Year Award" given by the Virginia Pharmaceutical Association during the convention in Richmond, Virginia, June 17-21. Dr. Smith was in Washington recently and addressed the Washington Section of the Society for Experimental Biology and Medicine.

Mr. Russell H. Fiske, chief of the Hospital Pharmacy of the Medical College of Virginia, was re-elected vice-president of the Virginia Society of Hospital Pharmacists at the convention held in Richmond on May 19. Miss Mary Ann Magee, a pharmacist in the Hospital, was re-elected to serve as secretary-treasurer. Mr. R. David Anderson, chief pharmacist at Kings' Daughters Hospital at Staunton, Virginia, a graduate of the School of Pharmacy at M.C.V., was re-elected president. (M. L. Neuroth)

**State College of Washington.** At this year's commencement a pharmacy student received recognition for being the senior with the highest grade point average for four years of work.

AFPE fellowships were awarded to three students connected with this school.

Mr. John Rohal of Ontario, California, a graduate in the Class of 1951, has initiated an annual class scholarship fund for the school. The first scholarship for the Class of 1951 will be awarded in September. Mr. Rohal is serving as general chairman of the fund-raising plan and will contact other classes in an attempt to provide a broad scholarship program for the school. (V. N. Bhatia)

**University of Washington.** Dr. H. W. Youngken, Jr., and family will spend the summer in Europe and the British Isles. During that time, Dr. Youngken will present several seminars and attend scientific meetings.

The annual College of Pharmacy Pharmacy Week was held May 21 to 25. The five days were given over to field trips, an all-day picnic at Lake Wilderness, a tug-of-war between the chemistry and pharmacy students, the College Awards Banquet, and a Pharmacy Dance. At the Banquet three awards were given by the Washington State Pharmaceutical Association, four by the American Foundation for Pharmaceutical Education, one by

the Washington State Pharmaceutical Association Auxiliary (Pierce County Unit), one by the Spokane Unit, three by the Seattle Unit; and three by the Statewide Auxiliary. Other awards given were the Lambda Kappa Sigma Inspirational Award, the Ethel J. Heath Key (LKS), and the C. W. Johnson Memorial Prize, the Lehn & Fink Gold Medal, the Linton Memorial Award, the McKesson & Robbins Award, the Merck Awards, the Rho Chi Society Award, and the Bristol Laboratories Award.

Dr. E. H. Djao has accepted a position at the Detroit Institute of Technology. During the past year he has served as an instructor in pharmacognosy at the College.

Dr. Muriel Vincent, who earned her Ph.D. in pharmaceutical chemistry at the University, and has been teaching the past year at Oregon State College, is the new head of the Pharmacy Department at North Dakota Agricultural College.

Dr. L. Wait Rising recently appeared on Radio Station KYOW as a participant in "Meet the Professor."

The College of Pharmacy collaborated in the production of a colored film, recently shown on a TV program sponsored by the Weyerhaeuser Timber Company which portrayed pharmacy as a potential career for graduating high school seniors. The film is one of a series of vocational pictures produced by the Weyerhaeuser Timber Company as a public relations gesture. It is now available for vocational guidance talks.

Dr. Daniel Tsao, a former graduate student and member of the College faculty, who is now teaching at Oregon State College, will spend the summer in Seattle doing research work at the University of Washington Medical School.

Professor Finlay Morrison, Faculty of Pharmacy, University of British Columbia, recently visited the campus to discuss his research program with Drs. Hall and Rising. Professor Morrison has just been appointed Registrar for the British Columbia Pharmaceutical Association. He will carry on the duties of this office in addition to his teaching.

William Roth, Assistant State Chemist in the Dean's Office, was granted his Ph.D. degree on the completion of his research in the field of pharmaceutical chemistry.

Dr. E. M. Plein gave a lecture on "Modern Dermatological Preparations" at the annual Postgraduate Pharmacy Refresher Course, held on the Washington State College Campus April 18 and 19. (L. Wait Rising)

**University of Wisconsin.** Professor Glenn Sonnedecker participated in the First Middle East Pharmaceutical Conference which took place in Beirut, Lebanon, on May 10-13.

Dr. William Apple has been elected President of the Wisconsin Pharmaceutical Association. Professor Apple will take part in the Eighth Annual Teachers' Seminar on Pharmacy Administration which is scheduled for July 22-27 in Austin, Texas, and will also address the Texas Pharmaceutical Association convention.

Summer research grants have been awarded to Professors Dale Wurster and Edward Smisson.

Mr. Leon Lachman, a graduate student, received the Richardson Award.

The administrative offices of the School of Pharmacy are to be air-conditioned this summer.

The second annual Rennebohm Teaching Assistant Awards were presented to four University of Wisconsin School of Pharmacy graduate students. The awards were given for outstanding instruction in pharmacy and phar-

maceutical chemistry. First-place awards of \$300 each were presented to two students. Second-place prizes of \$100 each also went to two students. The students are all doctorate candidates at the University of Wisconsin. Funds for the awards were given to the School of Pharmacy by Oscar Rennebohm, University of Wisconsin regent, to encourage the highest standards of instruction among teaching assistants in pharmacy and pharmaceutical chemistry. Mr. Rennebohm is a former governor of Wisconsin. (Alex Berman)

**University of Wyoming.** During the week of April 7-15, a student group, numbering thirty-five persons from the College of Pharmacy, accompanied by Dr. Raymond J. Kahl, Associate Professor of Pharmaceutical Chemistry, Mrs. Kahl, and Mrs. Georganna Berger, Emergency Instructor of Pharmacy, made a trip by Continental Trailways Bus to visit three pharmaceutical houses in the Midwest. Early in the week they were guests of Eli Lilly and Company in Indianapolis, Indiana. In the middle of the week they were guests of Upjohn and Company, at Kalamazoo, Michigan. Then during the latter part of the week, they were guests of Abbott Laboratories in Chicago.

Dean David W. O'Day, Mrs. O'Day, and their daughter, Mary Anne, attended the National Conventions of the American Association of Colleges of Pharmacy and the American Pharmaceutical Association held on April 8-13, in Detroit. Dean O'Day was a Delegate to the House of Delegates of the A.Ph.A. and a member of the Resolutions Committee of that organization. He is also a member of another committee for the A.Ph.A. and one for the AACP. On April 12, Dean O'Day presented a paper before the Scientific Section of the A.Ph.A. entitled, "The Pharmacology of Some New Cyclooctylalkylamines." Dr. Raymond J. Kahl, Professor William E. Johnson, and Dean O'Day all from the faculty of this College of Pharmacy are co-authors of this paper.

On April 19, the entire faculty of the College of Pharmacy, and the wives or husbands of those married, accompanied the senior students, including several student wives, on a trip to Denver, Colorado, where they made an inspection tour of the Davis Brothers Wholesale House and were guests of Davis Brothers at a luncheon at the Oxford Hotel at noon and a banquet at the Park Lane Hotel in the evening.

Three representatives from the Montana Branch of McKesson and Robbins in Billings presented a Drug Sales Program to the upperclassmen in the College of Pharmacy on Thursday, May 17. A considerable amount of audio-visual material was used in the presentation of the program. Faculty and upperclassmen, and the wives or husbands of those married, were guests at a banquet given by McKesson and Robbins.

Dr. David W. O'Day, Dean of the College of Pharmacy, presented the main address at the Commencement Exercises at Rock River High School, Rock River, Wyoming, on Wednesday, May 23. The title of Dean O'Day's talk was "The Challenge of the Future." Dr. O'Day also gave a talk entitled, "Ten Years of Pharmaceutical Education in Wyoming," at the Monday morning session of the Wyoming Pharmaceutical Association State Convention held in Laramie, Wyoming, March 19, 20, and 21.

The June issue of the *Wyoming Alumnews* contained a very interesting article entitled, "Pharmacy Marks Decade—Drug College Puts Ten Candles on Its Cake," by June Schrib, Editor of the Wyoming alumni publication. Along with the article there are several excellent pictures showing faculty and students working in the laboratories of the University of Wyoming Col-

lege of Pharmacy. In her article, Mrs. Schrib summarized the history of the College of Pharmacy during the past ten years and discussed the activities of the College at the present time, both in the teaching and research fields.

Dean David W. O'Day was the principal speaker at the initiation dinner for the Wyoming Chapter of Sigma Xi during the first part of May. The title of Dean O'Day's talk was, "The Best Inspirer of Hope is the Best Physician."

Dean David W. O'Day, Dr. Raymond J. Kahl, and Professor William E. Johnson, all faculty members from the University of Wyoming College of Pharmacy, attended the Annual Meeting of the Colorado-Wyoming Academy of Science, held on the Campus of the Colorado School of Mines at Golden, Colorado on Friday, April 27. At the morning session of the Biology Section, Professor William E. Johnson gave a paper entitled, "The Pharmacology of Some New Cyclooctylalkylamines—I. Vasopressor Activity and the Effect on the Heart Rate." At the afternoon session of the Chemistry Section Dr. Raymond J. Kahl, gave a paper entitled, "Analogues of Symptothomimetic Amines." While in Golden, Dean O'Day visited for a short time with Dr. John Vanderwilt, President of the Colorado School of Mines.

Dean David W. O'Day, Dr. Jack N. Bone, and Dr. Raymond J. Kahl, of the faculty of the College of Pharmacy, together with two student panels of four members each, participated in the Sunday afternoon program at the State Convention of the Wyoming Pharmaceutical Association. The Convention of the State Association was held in honor of the tenth anniversary of the founding of the University of Wyoming College of Pharmacy. The members of the faculty of the University of Wyoming College of Pharmacy, and the wives or husbands of those married, cooperated with the Laramie pharmacists and the officers of the Association in carrying out all plans and arrangements for the Convention. On Monday afternoon, May 21, this College of Pharmacy held Open House for all of those persons in attendance at the state meeting. The Open House was very well attended and the registration for the entire State Convention was considered exceptionally good.

Continuing a program which has been carried on for a number of years at this College, several District Managers or other representatives of pharmaceutical firms visited this College of Pharmacy during the past three months to give talks before the senior students in Dr. Jack N. Bone's class in dispensing pharmacy.

The Wyoming State Board of Pharmacy held examinations for registered pharmacists at the University of Wyoming College of Pharmacy, on Friday and Saturday, June 1 and 2. Twelve of the graduating seniors from the University of Wyoming College of Pharmacy took the theoretical part of the examination. Four of these graduates also took the practical examination, along with two graduates of this College who had taken the theoretical examination at an earlier time. All six of these persons were successful in qualifying as registered pharmacists in Wyoming. (David W. O'Day)

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*Every dean worth his salt strives continually to make good teachers of the young faculty men who come under his direction.*

Hugh C. Muldoon, Am. J. Pharm. Ed., 8, 104 (1944)



## BOOK REVIEWS

**Essays in Biochemistry**, Samuel Graff, Editor. John Wiley & Sons, Inc., 440 Fourth Avenue, New York 16, N.Y., 1956. x + 345 pp., 56 figs., 33 tbls. \$6.50.

This series of discussions of biochemical topics was published as a dedicatory volume to Hans Thacher Clarke on his retirement as professor of biochemistry at Columbia University. Although the contributors were either students or associates of Professor Clarke at one time, the essays in this volume are by no means parochial. The broad survey of the field of biochemistry, the intensive nature of the separate reviews, and the outstanding group of contributors are enough to warrant the attention of anyone interested in biochemistry.

It is worthwhile to record the various topics discussed and mention their authors to give an insight into the coverage of biochemistry. By topics, not necessarily explicit titles, the following reviews are presented: some metabolic products of basidiomycetes (Anchel), evidence for the heterogeneity of deoxyribonucleic acid (Bendich), biosynthesis of branched-chain compounds (Bloch), biochemical aspects of induced lysogeny (Borek), the development of a plasma volume expander (Max Bovarnick and M. R. Bovarnick), the nature of conjugated proteins (Chargaff), unbalanced growth and death as studied by thymine metabolism (Cohen), biochemistry of the steroid hormones (Engel), biochemistry of the bacterial viruses (Evans), aspects of peptide bond formation (Fruton), the nature, cause, and cure of cancer (Graff), lipid metabolism (Gurin),

tetrazoles as carboxylic acid analogs (Herbst), a theory of asymmetric reactions in non-classical stereoisomers (Hirschmann), the nitrogen-sparing effects of glucose (Hoberman), inositol metabolism as a study of the relation of conformation to reactivity (Magasanik), the nature and role of ferritin (Mazur), nitrogen transfer in biosynthesis (Ratner), electronic aspects of enzyme activation (Rittenberg), porphyrin biosynthesis (Shemin), carbohydrates as precursors of aromatic compounds (Sprinson), steps in the determination of the structure of the protein ribonuclease (Stein), glycogen turnover as related to the metabolic pool and the glycogen molecule (D. Stetten and M. R. Stetten), recent advances in the chemistry of the veratrum alkalines (Wintersteiner), and the chemical basis of hereditary determinants (Zamenhof).

All of these chapters are on a high level, and, excepting personal tastes, there is little basis for singling out any in particular. It is one of the attractive features of these essays that the authors have not only clearly defined some of the problems in biochemistry and outlined the salient facts that bear on these problems, but they have also boldly and imaginatively proposed hypotheses that can serve as a guide to further experimentation. This is a book that should find wide use as a reference and handy review on the recent work described. Moreover, in these days of careful editing there are few errors or technical criticisms that can be leveled; there are a few structural formulas (pp. 25, 130, 224) that are misprinted, and in several places



a double-headed arrow, the symbol generally reserved for resonance states, is used to depict reversible reactions.

Because of the purpose for which these essays were written and the basis of selection of the contributors, there are certain topics that are not treated, but in the fast-growing literature of biochemistry these gaps can easily be filled. What is important from the standpoint of the reviewer is the opportunity to receive first-hand these commentaries and fruitful speculations on the current status of biochemistry from a number of first-rank biochemists.

I. W. Elliott, Jr.

Florida A. and M. University

**Psychopharmacology.** A Symposium organized by the Section of Medical Sciences of the AAAS and the American Psychiatric Association and presented at the Berkeley Meeting, December 30, 1954. Edited by Nathan S. Kline with a foreword by Winfred Overholder. Publication No. 42 of the American Association for the Advancement of Science, Washington, D.C., 1956. viii + 165 pp., 1 fig., 11 tbls. \$3.50 (\$3.00 for AAAS members).

The appearance of this volume is exceptionally timely in view of the currently heightened interest in drugs which may simulate mental disorders or, contrariwise, may have some value in the management of such conditions. The biochemists more seriously than ever are now challenging the Freudians, the pharmacologists are struggling to direct some of the explanations into conventional channels, and imaginative individuals are busy popularizing terms such as hallucinogens, ataractics, and tranquilizers. All serious individuals are hopeful that the current shower of enthusiastic reports will prove to have some solid substance and provide the basis for eventual

achievements of great significance. For those interested in obtaining the best possible appraisal of the situation, this present volume is a splendid answer. It represents the careful estimates of fifteen authorities, most of them practical psychiatrists with a lesser numerical representation of pharmacologists. Most attention has been given to chlorpromazine, reserpine, LSD<sub>25</sub>, mescaline, yohimbine, and serotonin in about that order. Full consideration is given to the undersized side-effects of these drugs, particularly to the hepatic disturbances of chlorpromazine and the Parkinsonism-like effects of reserpine. The over-all view which will be reached after considering all opinions will be one of cautious hopefulness.

This volume is not a reference book intended for use at the introductory student level. It can be reviewed with interest, however, by any serious member of the reading public.

A point of related interest is the simultaneous appearance of *Pharmakopsychologie und Psychopathologie* by W. de Boor, published in Berlin by Lange & Springer, which is more encyclopedic in nature since it takes up the psychologic responses of virtually all drugs which have significant psychologic effects.

R. P. Walton

Medical College of South Carolina

**The History and Conquest of Common Diseases**, Walter R. Bett, Editor. University of Oklahoma Press, Norman, Oklahoma, 1955. ix + 334 pp. \$4.00.

In the last two decades, a small but steady trickle of books dealing with the history of diseases has been coming off the presses. For example, the classic works on the history of epidemiology by August Hirsch (1817-1894), Charles Creighton (1847-1927), J. F. K. Hecker (1795-1850), and Heinrich Heiser

(1811-1884) have been augmented in recent years by the writings of Zinsser (*Rats, Lice, and History*, 1935), Winslow (*The Conquest of Epidemic Disease*, 1943), A. E. and W. E. Stearn (*The Effect of Smallpox on the Destiny of the Amerindian*, 1945), Duffy (*Epidemics in Colonial America*, 1953), and Hirst (*The Conquest of Plague*, 1953), to cite just a few. Other books such as Temkin's study on epilepsy (*The Falling Sickness, a History of Epilepsy from the Greeks to the Beginnings of Modern Neurology*, 1945), and Ackerknecht's work on malaria (*Malaria in the Upper Mississippi Valley, 1760-1900*, 1945), as well as numerous articles in the last twenty years, have materially expanded this field of medical history.

A welcome addition to this growing literature is the book under review, in which eighteen specialists have contributed their talents to the writing of a fascinating anthology dealing with the history of certain common diseases. Discussed in this work are acute communicable diseases (diphtheria, scarlet fever, measles, German measles, smallpox, mumps, and whooping cough) by George Rosen. Other essays are on influenza, by C. H. Stuart-Harris; pneumonia, by E. M. and William Brockbank; tuberculosis, by L. J. Moorman; rheumatism, by W. S. C. Copeman; arthritis, by Edward F. Hartung; heart disease, by Terrence East; Bright's disease, by R. H. Major; tonsils and adenoids, by R. S. Stevenson; the venereal diseases, by D. J. Cambell; rickets, by A. W. Franklin; diseases of the endocrine glands, by A. P. Cawadias; gallstones, by D. C. Balfour; appendicitis, by W. R. Bett; epilepsy, by W. G. Lennox; cancer, by Harold Burrows; and finally, malingering, by Edward L. Murphy.

Not all the essays are of equal merit, although most are excellently written and documented. This re-

viewer was frankly puzzled by the inclusion of E. L. Murphy's essay on malingering. Why should malingering, which has been defined as "a willful, deliberate and fraudulent imitation or exaggeration of illness," be included in a work of this kind? The Editor has stated that this book was written "mainly for patients," and has included a glossary of medical terms to help the lay reader. Even so, the book requires considerably more background than the general reader possesses. E. M. and William Brockbank's able account of pneumonia did not include a discussion of the famous work by the French clinician, Louis (*Recherches sur les effets de la saignée*, 1835) in which medical statistics are used to evaluate the effect of bloodletting, tartar emetic, and blistering in the treatment of pneumonia. All these are minor flaws and do not materially detract from the excellence of the work.

For some inexplicable reason, the theoretical and applied aspects of therapeutics over the centuries have been only superficially investigated by historians. It was therefore gratifying to note that a number of the essays dealt in an interesting manner with this vital aspect of medicine.

This book is strongly recommended for inclusion in pharmacy libraries and will doubtless prove to be valuable as assigned reading in public health courses.

Alex Berman  
University of Wisconsin

**Methods of Biochemical Analysis, Volume III**, Edited by David Glick in collaboration with 23 different contributors. Interscience Publishers, New York, N.Y., 1956. x + 437 pp., 41 figs., 44 tpls. \$9.50.

There are few areas of scientific endeavor requiring greater diversity of knowledge and technical skills than biochemical research. With the enormous growth of biochemistry there has arisen an ever-increasing

need for an annual volume devoted to biochemical methods of analysis. This volume and the two previous ones have done much to fill that need. In biochemical or pharmaceutical research it is rather unusual to find in printed form details of a method especially suited to one's needs. More often it becomes necessary to modify some previously published method or to develop an entirely new procedure for the purpose. The methods dealt with in this volume are presented in sufficient detail and with extensive literature citations, enabling an investigator to quickly appraise any given method on the basis of his specific needs.

This volume consists of twelve units, each dealing with a different analytical procedure. In all there are eight hundred and forty-three references to other literature. The great biological importance of phosphorylation processes has focused interest on the problem of determining the amount and form of phosphates in organic systems. Methods are described for the determination of organic phosphorus compounds by phosphate analysis. Several microbiological procedures are presented for the assay of thioctic acid. There is a thorough and excellent coverage of methods for analysis of free and combined histamine in tissues. Enzymic micro-determinations of uric acid, hypoxanthine, xanthine, adenine, and xanthopterin by ultraviolet spectrophotometry are described. A well-justified unit involves a general review and discussion of periodate oxidations as applied to biochemical analysis. The advantages and limitations of the periodate oxidation procedure as applied to the analysis of carbohydrates and other  $\alpha$ -hydroxy compounds are thoroughly covered in this 42 page unit. Methods applicable to carbohydrate analysis are the subjects of two other units, one on the use of infrared analysis in the determination of carbohydrate

structure, and another on end group analysis of polysaccharides.

Measurement of complex ion stability with ion exchange resins and analysis of metal-protein complexes by various physical and chemical methods are systematically covered. One unit is devoted to the determination of zinc in biological materials. Another unit reviews the uses of metal buffers and metal indicators in biochemical analysis. Lastly, there is included a very appropriate unit on flame photometry and spectrometry.

The reviewer is favorably impressed with this volume. The Editor is to be commended for his careful and well-balanced selection of topics and for obtaining the services of such a distinguished group of collaborators. Pharmaceutical and biochemical investigators should welcome this valuable addition to the literature on biochemical methods.

John R. Clopton  
University of Colorado

**Organic Insecticides—Their Chemistry and Mode of Action**, Robert L. Metcalf. Interscience Publishers, Inc., New York, N.Y., 1955. x + 392 pp., 7 figs., 56 tabs. \$8.50.

This book represents an attempt to summarize most of the available information on the chemistry and mode of action of organic insecticides, of which it is claimed that there are now over 100 in use. According to the author, this book is an outgrowth of his monograph, *The Mode of Action of Organic Insecticides*.

There are fourteen chapters, many of which are devoted to special groups of insecticides, i.e., rotenoids, pyrethroids, organic thiocyanates, dinitrophenols, benzene hexachloride, the cyclodiene compounds, carbamates, the organic phosphorus compounds, dichlorodiphenyltrichloroethane, etc. A common pattern for these chapters includes an introduction, the chemistry, relation of struc-

ture to toxicity, mode of action, and mammalian toxicology. Other chapters deal with ascaricides, miscellaneous insecticides, and insecticide resistance.

The name Metcalf will be familiar to many readers with even a limited contact with entomological literature, representing over one-half of a century of experience in this field. The present author, carrying on the family name in entomology, appears well qualified by training, tradition, and experience to do so. This reviewer is not aware of any other attempt to bring together the latest information on the chemistry and mode of action of so many insecticides in a single compendium. Each chapter is well documented, there being well over one thousand references in the book.

This book should be of value to researchers and others interested in the still somewhat meager knowledge of the relationship of chemical structure to insect toxicology. To this end, it will be a valuable reference for pharmacy school libraries, especially in those schools offering courses dealing with agricultural chemicals.

*Kenneth Redman*

*South Dakota State College*

**Androgens: Biochemistry, Physiology and Clinical Significance,**

Ralph I. Dorfman and Reginald A. Shipley. First Edition. John Wiley and Sons, Inc., 440 Fourth Avenue, New York, N.Y., 1956. xvii + 590 pp., 97 figs., 111 tbls. \$13.00.

Workers in every field of medical science be they enzymologists, physiologists, pharmacologists, or clinical endocrinologists will find in this volume an exhaustive compilation of the significant research relating to the androgens. The authors were successful in presenting the ramifications of the subject in logical se-

quence. The arrangement of material and thoroughness of documentation could well serve as a model for reference works which it is to be hoped will soon follow dealing with the other products of endocrine secretion.

The subject is introduced with a brief statement of general concepts. Students in the various areas of medical science would have been well served by a more extensive evaluation of the present state of knowledge concerning the androgens. The literature is divided into three parts. Biosynthesis, detoxication, and excretion are discussed in a section on biochemistry. In the section on physiology the effects of the androgens on enzymes, cells, organs, and the organism in general are discussed. In the section on the clinical aspects of the androgens, the clinical endocrinologist is provided with a critical evaluation of androgen therapy in a great variety of clinical states. The presentation of the literature is well documented, and extensive bibliographies follow each topic. In the appendix are described in detail techniques for the preparation of urinary 17-ketosteroids as well as for the chemical and biologic assay of 17-ketosteroids and androgens. In the appendix are also listed the common names and structural formulae of two hundred twenty-five steroid compounds.

Workers in the pharmaceutical sciences will find of particular interest the references to rates of absorption, dosages in various disease states, forms of administration, and side effects of the androgens.

Although designed primarily for the medical practitioner and research worker, this book should serve as a valuable reference book for the teacher as well as undergraduate and graduate student in pharmacy.

*Michael M. Clay*  
*Columbia University*

**Liquid-Liquid Extraction**, L. Alders. Elsevier Publishing Co., New York, N.Y., 1955. x + 206 pp., 110 figs., 22 tbls. \$5.50.

Mr. Alders has attempted in this short book to prepare a manual of techniques for all investigators making use of liquid-liquid extraction. As may be expected from the author's background, however, the book is slanted largely toward large-scale and industrially feasible operations. Examples, for instance, are cited mainly from the petroleum and heavy chemical fields.

One can gather from the above that it is the reviewer's feeling that the book will have only a limited appeal to laboratory workers interested in isolation and separation of biological and pharmaceutical materials. No mention is made, for example, of Craig-Post extractors, although many pages are devoted to tower extractors and other commercial-scale units. Although the success of any liquid-liquid extraction process depends largely on the skill of the operator in selecting the proper solvent combinations, no discussion of solvents and solvent characteristics appears in the book. The applicability and the great convenience of using the error table to approximate the distribution function for multistage extraction process are not discussed.

To the book's credit, it must be said that the treatment on counter-current and cross-current extraction for systems containing relatively high concentrations of solute (such as is the case in the petroleum industry) is the best that has appeared in print to date. The author treats two-phase mixtures as ternary systems and makes liberal uses of triangular-phase diagrams. A large number of numerical examples are used throughout the text.

In the reviewer's opinion, this book is not particularly suited for an av-

erage pharmaceutical library.

*Takeru Higuchi*  
*University of Wisconsin*

**Pharmacy in Michigan**, prepared by the Pharmacy Study Group under the supervision of the Michigan Council of State College Presidents. J. W. Edwards, Publisher, Inc., Ann Arbor, Michigan, 1956. ix + 60 pp., 15 tbls. \$1.00.

In this report we find the important points of the Pharmaceutical Survey correlated well with the existing conditions of pharmacy in Michigan. The topics discussed deal with practicing pharmacy, past, present, and future; supply and demand of pharmacists; changes in pharmaceutical education with a brief discussion of the five year program; educational programs and their needs.

From time to time the authors discuss new educational programs operating in one or more states other than Michigan. Frequently they summarize pertinent pharmaceutical trends gathered from various professional and non-professional publications. This information can readily be a stimulus for educators in other states to launch similar pharmaceutical projects.

The report indicates a trend toward a greater number of professional and semi-professional pharmacies which would lead one to conclude that there is a greater need for more scientific training to prepare a pharmacist to play the role of a medical consultant. However, the questionnaires returned by nine hundred fifteen graduates contained a voluntary statement expressed by one hundred thirty-one for a need for more training in pharmacy administration. Also, of the one hundred forty-one pharmacists interviewed, none expressed the need for additional training to better prepare a pharmacist to be in an advisory capacity to physicians. One wonders if the pharmacist is aware of his

greatest deficiency. Unless the pharmacist does become aware of the role he is slowly acquiring we as teachers will encounter considerable difficulty in trying to achieve that goal.

It is my opinion this report should be available in every pharmacy library and in the hands of university administrators. It would be most profitable for pharmacy faculty members to study the report preliminary to faculty discussion. Perhaps a summary of the report could be presented to all local pharmacy organizations. Also this report could well be made a part of a senior seminar.

Doctors R. A. Deno, Ralph M. Wilson, and Stephen Wilson, authors of the report, will, I am sure, stimulate others to study and evaluate existing pharmaceutical problems in their respective states.

*Joseph F. Kowalewski*  
*University of Cincinnati*

**Preparation and Use of Audio-visual Aids**, Kenneth B. Haas and Harry Q. Packer. Third Edition. Prentice-Hall, Inc., New York, N. Y., 1955. ii +381 pp., 200 illus. \$6.65.

This third edition brings a most up-to-date practical information and a detailed know how that is needed to prepare and use audio-visual aids to the greatest advantage, whether for use in the classroom, the business office, the factory, the department store, the church, or the community house. It is a very comprehensive and authoritative book on the preparation and use of most every kind of projectional and non-projectional training aid.

The book is unusual in three respects. First, the content is based on thoroughly tested experience with audio-visuals in school classrooms, laboratories, religious, social, and civic groups, industrial organizations, and commercial businesses. It should be of positive value to educators and group leaders

in practically all kinds of classes and levels of instruction. The ideas, concepts, and skills presented will help to speed and give direction to learning, and will also improve the learning process in all respects. Second, the authors waste no time with intangibles but place the contents for immediate use by the reader. It offers not only specific facts and suggestions for the preparation and use of most any kind of audio-visual aid, it also gives specific directions on how to arrange and organize the use of audio-visuals, how to evaluate and personalize audio-visuals in class or group meetings, and how to create an instructional laboratory. Third, the book contains a most complete listing of sources of audio-visual aids and devices along with specific information, prices, and assistance.

There are seventeen chapters in this third edition which includes more than two hundred drawings, cartoons, photographs, charts, and graphs. An idea of the scope of material covered can be obtained from the titles of the chapters, namely, Motion Pictures, Discussional Filmstrip and Sound Film, Teaching Slides, Opaque and Overhead Projection, Maps, Charts, Graphs, and Diagrams, Flash Cards and Flannel Boards, Posters and Manuals, Pictures and Photographs, The Blackboard and Bulletin Board, Objects, Specimens, and Models, Audio-visual Laboratory, Field Trips, Radio, Recording and Playback Equipment, Television, Evaluation of Audio-visual Aids, Organizing to Use Audio-visual Aids, and Personalized Audio-visual Instruction. Although a few chapters are not of particular value in pharmaceutical instruction the majority can be employed where desired.

In addition to the seventeen chapters the authors have included two appendices. Appendix one cov-



ers printed teaching aids and lists sources of equipment for such purposes. Appendix two lists over five hundred sources (with addresses) where audio-visual aids may be purchased, rented, or borrowed. In addition, information is given on how to borrow or purchase films from the United States Government. Finally, a most complete listing of manufacturers and producers of audio-visual equipment and supplies is given.

This book should be in every pharmacy library because of its useful source of information on the preparation and use of audio-visual aids for use by pharmacy educators and also because it contains an exhaustive reference to films, devices, and equipment for use in teaching.

Nicholas W. Fenney  
University of Connecticut

**Therapy of Fungus Diseases,**  
Thomas H. Sternberg and Victor D. Newcomer, Editors. Little, Brown and Company, Boston Massachusetts, 1955. xxiii + 337 pp., 45 figs., 118 tpls., \$7.50.

This book represents a compilation of the proceedings of an international symposium held on June 23, 24, 25, 1955, at Los Angeles. From a vast amount of hitherto unpublished data presented by over two hundred distinguished scientists, the editors have skillfully succeeded in selecting and arranging fifty-four pertinent papers into a well-integrated, readable reference book.

The scope covered by the diverse topics leaves practically "no stone unturned" in giving to the reader a multitude of unsolved problems which underlie the etiology, biological aspects, and treatment of mycotic infections as well as an excellent presentation of what has already been accomplished in this field. Of special interest are the concise reports on the status of

fungus diseases in various countries in tropical, subtropical, and temperate regions, and the observation that, although the incidence of mycotic disease is slowly increasing throughout the world and will undoubtedly become a serious problem in the near future, modern therapy is still in the "pre-penicillin" era. Quickly dispelled, however, is the concept that present day antimycotic investigations are being conducted in the "hit or miss" manner that characterized the early days of antibiotics. On the contrary, the reviewer is impressed by the progress that has been made through systematic studies and planned research.

Almost a third of the book is devoted to nystatin, an antibiotic isolated in 1950 from *Streptomyces noursei*, which has given excellent results in the treatment of moniliasis, but disappointing results in the treatment of superficial dermatophyte infections. This antimycotic is discussed in detail from the standpoint of structure and chemical properties, factors influencing its action, bioassay, effective routes of administration, and finally, clinical evaluation. Less meticulously reviewed are such antifungal agents as the sulfonamides, sulfones, undecylenic acid, diphenylpyraline, actidione, and many others.

The numerous photographs and printed tables are clear and well chosen, but the typed tables (which are in the minority) do not reproduce well and with subsequent printings may be difficult to read.

I strongly recommend this book to the specialist who is interested in keeping abreast of current antimycotic research, for the reviewer is unaware of the existence of any other reference of comparable scope which presents the subject in such a condensed, informative fashion.

David E. Mann, Jr.  
Temple University



**Accepted Dental Remedies.** Twenty-first Edition (1956). American Dental Association, 222 E. Superior Street, Chicago 11, Illinois. 1956, xiv + 196 pp. \$1.75, paper; \$2.25, buckram.

Since 1930, the Council on Dental Therapeutics of the American Dental Association has made available to the dental profession accurate and reliable information regarding drugs, chemicals, and pharmaceuticals of dental interest. Such information has been disseminated through the medium of *Accepted Dental Remedies*, the 21st Edition (1956) of which appeared late in 1955. *Accepted Dental Remedies* is for dentistry what *New and Nonofficial Remedies* is for medicine.

The design of the 1956 edition is essentially the same as that adopted in and used since 1949: two-column, 7 x 9 format, available in both paper and buckram bindings. The topics listed in the table of contents of the 1956 edition are identical with those listed in 1955, and the pagination is approximately the same. In addition to the inclusion of material that is of more or less particular dental interest, i.e., mechanical aids, fluorine compounds and mouth washes, approximately one half of the book is devoted to therapeutic agents. Among these are analgesics, sedatives and hypnotics, anesthetics, antiseptics and germicides, anti-infectives, astringents, and CNS stimulants. The discussion of "Actions and Uses" is obviously directed to dental needs. Pertinent literature references are cited at the end of each therapeutic section. The 1956 edition is revised so as to conform to the standards of the fifteenth revision of the United States Pharmacopeia and the tenth edition of the National Formulary, each of which has been official since December 15, 1955.

As has been customary in past editions, the 1956 edition contains a short section on prescription writing.

The object is to provide the dentist with concise reference material pertaining to the principles and objectives of prescription writing. It also contains an acceptable format for the prescription blank, an encouragement to use the metric system in prescriptions, the commonly used equivalents in both the metric and apothecaries' systems, and the legal aspects of the Harrison Narcotic Act. The printed prescription blank might well be modified to include the customary vertical ruling appearing on most printed blanks and which is referred to in the text. Furthermore, a listing of sample prescriptions for several of the dosage forms commonly used, i.e., tablets, mouth washes, troches, etc., in dental practice would seem indicated. It is commonly agreed that many dentists do not use the written prescription because of lack of confidence in their ability to execute a written prescription order. A ready reference in *Accepted Dental Remedies* to properly written representative prescriptions would be useful. The inclusion in this section of some of the commonly used prescription abbreviations would also appear helpful.

A matter that seems to be of increasing importance in dental practice is the growing number of local drug reactions seen by the dentist. If this observation is true, contemporary dentifrice formulations must be recognized as an important source of the problem. It would seem that the dentist should be keenly aware of the possible source of many oral lesions he encounters. The Council on Dental Therapeutics has a very sensible outlook on the dentifrice problem, and the conservative policy of classifying dentifrices is commendable. However, the average dental reader of *Accepted Dental Remedies* probably will not be impressed with the problem from even a careful examination of the table of contents. Although the section on dentifrices and the individual monographs for

accepted drugs may suggest potential hazards, it appears that the problem might be presented more effectively to the average user of the publication. A short section, perhaps entitled "Local Drug Reactions," would permit a more impressive presentation of the problem than is currently possible.

*Accepted Dental Remedies* should be on the annual book order of every pharmacist as well as of every dentist. Students in both dentistry and pharmacy should become familiar with and use the book in appropriate courses in their respective curriculum. Since members of the instructional staff of colleges and schools of pharmacy are asked frequently to participate in dental seminars and in dental school instruction, they should be thoroughly familiar with *Accepted Dental Remedies* and urge dentists to use it as a guide in the selection of drugs and chemicals for dental use.

Donald C. Brodie  
University of California

**Fundamentals of Dispensing Pharmacy**, Elmer M. Plein. Fourth Edition. University of Washington Press, Seattle, Washington, 1955. 167 pp. \$3.25.

This is a laboratory manual. This fact is stated on the inside cover, but not on the outside cover nor was this indicated in the announcement. The manual contains 268 selected prescriptions and formulas. These are arranged in dosage groups such as bulk powders, divided powders, capsules, etc. All dosage forms that could reasonably be expected to be prepared by the practicing pharmacist are illustrated by the exercises.

In addition, the author has included a statement of the objectives of the course along with general directives on laboratory operation and student conduct. Tables of weights and measures are included, but only brief reference is made to use and care of the balance. Ten daily work sheets providing for the entry of pertinent information of each prescription are included.

Since laboratory manuals are designed to correlate the didactic material, it is difficult to evaluate this publication, the reviewer not having access to the lecture material. It is presumed that this manual fills the needs for the "fundamental dispensing pharmacy" course at the University of Washington. It is difficult to see, however, how the manual could be used effectively under different circumstances. The prescriptions represent a broad scope of formulation and compounding procedures, ranging from simple powder mixtures to complex chemical and physical systems. It is inconceivable that a student learning the fundamentals of dispensing pharmacy would have the necessary background for complete understanding of many of the exercises included in this publication. At best, the student would be exposed to a large variety of materials, formulas and rote compounding procedures. Many of the exercises contain detailed compounding directions while others give literature reference.

Since the manual is not indexed, its value as a reference work is greatly reduced.

Earl P. Guth  
Ohio State University

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*The more highly trained a man is in his field, the better teacher he is likely to be. It is easier to take a cupful of water from a jar that is well filled than it is from one that has only a cupful in it.*

Hugh C. Muldoon, *Am. J. Pharm. Ed.*, 8, 104 (1944)

## NEW BOOKS

**Textbook of Organic Medicinal and Pharmaceutical Chemistry**, Charles O. Wilson and Ole Gisvold. Third Edition. J. B. Lippincott Company, Philadelphia, Pennsylvania, 1956. xvi + 823 pp., figs., 97 tpls. \$11.00 (to be reviewed in the Fall issue).

**Medicinal Chemistry, Vol. II**, F. F. Blicke and C. M. Suter, Editors. John Wiley and Sons, New York, New York, 1956. vi + 311 pp., illus., tpls. \$10.00 (to be reviewed in the Fall issue).

**Therapeutic Use of Artificial Radioisotopes**, Paul F. Hahn, Editor. John Wiley and Sons, New York, New York, 1956. x + 414 pp., figs., tpls. \$10.00 (to be reviewed in the Fall issue).

**The Alkaloids, Chemistry and Physiology, Vol. V**, Pharmacology, R. H. F. Manske, Editor. Academic Press Inc., New York, New York, 1956. ix + 388 pp., illus., tpls. \$9.50 (to be reviewed in the Fall issue).

**Blakiston's New Gould Medical Dictionary**, Normand L. Hoerr and Arthur Osol, Editors. Second Edition. McGraw-Hill Book Company, Inc., New York, New York, 1956. 1463 pp., tpls., 252 illus. \$11.50 (to be reviewed in the Fall issue).

**Porphyry Biosynthesis and Metabolism**, G. E. W. Wolstenholme and Elaine C. P. Millar, Editors. Little, Brown and Company, Boston, Massachusetts, 1956. xii + 308 pp., figs., tpls. \$6.75 (to be reviewed in the Fall issue).

**Gestation**, Transactions of the Second Conference, Claude A. Villee, Editor. Josiah Macy, Jr. Foundation, New York, New York, 1956. 262 pp., 8 tpls., 118 figs. \$5.00 (to be reviewed in the Fall issue).

**Shock and Circulatory Homeostasis**, Transactions of the Fourth Conference, Harold D. Green, Editor. Josiah Macy, Jr. Foundation, New York, New York, 1956. 26 tpls., 69 figs. \$5.00 (to be reviewed in the Fall issue).

**Diseases of the Endocrine Glands**, Louis J. Soffer. Second Edition. Lea & Febiger, Philadelphia, Pennsylvania, 1956. 1032 pp., 104 figs. \$16.50.

**Radioisotopes in Medicine**, Staff, Oak Ridge Institute of Nuclear Studies. Catalog No. Y 3. At 7:2 M 46/3. Government Printing Office, Washington 25, D.C., 1956. 817 pp., illus. \$5.50.

**American Chemical Society Directory of Graduate Research**, Staff. 1955 Edition. Special Publications Department, American Chemical Society, 1155-16th Street, N.W., Washington 6, D.C., 1956. 446 pp. \$2.50 (paper).

**Histamine**, G. E. W. Wolstenholme and Cecelia M. O'Connor, Editors. Little, Brown and Company, Boston, Massachusetts, 1956. xvi + 472 pp., figs., tpls. \$9.00 (to be reviewed in the Fall issue).

**Drugs in Current Use**, Walter Modell, Editor. Springer Publishing Company, Inc., New York 10, New York, 1956. 150 pp. \$2.00 (paper).

MISCELLANEOUS PUBLICATIONS

**Corn.** Published quarterly by Corn Industries Research Foundation, Inc., 3 East 45th Street, New York 17, New York. Free.

**The Ford Foundation Annual Report, 1955.** Foundation Offices, 477 Madison Avenue, New York 22, New York. Free.

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Edward Spease, *Am. J. Pharm. Ed.*, 9, 141 (1945)

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